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NEWS 1 Web Page for STN Seminar Schedule - N. America  
NEWS 2 OCT 02 CA/CAPLUS enhanced with pre-1907 records from Chemisches  
Zentralblatt  
NEWS 3 OCT 19 BEILSTEIN updated with new compounds  
NEWS 4 NOV 15 Derwent Indian patent publication number format enhanced  
NEWS 5 NOV 19 WPIX enhanced with XML display format  
NEWS 6 NOV 30 ICSD reloaded with enhancements  
NEWS 7 DEC 04 LINPADOCDB now available on STN  
NEWS 8 DEC 14 BEILSTEIN pricing structure to change  
NEWS 9 DEC 17 USPATOLD added to additional database clusters  
NEWS 10 DEC 17 IMSDRUGCONF removed from database clusters and STN  
NEWS 11 DEC 17 DGENE now includes more than 10 million sequences  
NEWS 12 DEC 17 TOXCENTER enhanced with 2008 MeSH vocabulary in  
MEDLINE segment  
NEWS 13 DEC 17 MEDLINE and LMEMLINE updated with 2008 MeSH vocabulary  
NEWS 14 DEC 17 CA/CAPLUS enhanced with new custom IPC display formats  
NEWS 15 DEC 17 STN Viewer enhanced with full-text patent content  
from USPATOLD  
NEWS 16 JAN 02 STN pricing information for 2008 now available  
NEWS 17 JAN 16 CAS patent coverage enhanced to include exemplified  
prophetic substances  
NEWS 18 JAN 28 USPATFULL, USPAT2, and USPATOLD enhanced with new  
custom IPC display formats  
NEWS 19 JAN 28 MARPAT searching enhanced  
NEWS 20 JAN 28 USGENE now provides USPTO sequence data within 3 days  
of publication  
NEWS 21 JAN 28 TOXCENTER enhanced with reloaded MEDLINE segment  
NEWS 22 JAN 28 MEDLINE and LMEMLINE reloaded with enhancements  
NEWS 23 FEB 08 STN Express, Version 8.3, now available  
NEWS 24 FEB 20 PCI now available as a replacement to DPCI  
NEWS 25 FEB 25 IFIREF reloaded with enhancements  
NEWS 26 FEB 25 IMSPRODUCT reloaded with enhancements  
NEWS 27 FEB 29 WPINDEX/WPIDS/WPIX enhanced with ECLA and current  
U.S. National Patent Classification

NEWS EXPRESS FEBRUARY 08 CURRENT WINDOWS VERSION IS V8.3,  
AND CURRENT DISCOVER FILE IS DATED 20 FEBRUARY 2008

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NEWS LOGIN Welcome Banner and News Items  
NEWS IPC8 For general information regarding STN implementation of IPC 8

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\* \* \* \* \* STN Columbus \* \* \* \* \*

FILE 'HOME' ENTERED AT 11:05:21 ON 09 MAR 2008

=> FILE REG

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

0.21

0.21

FILE 'REGISTRY' ENTERED AT 11:06:11 ON 09 MAR 2008

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STRUCTURE FILE UPDATES: 7 MAR 2008 HIGHEST RN 1007169-18-7

DICTIONARY FILE UPDATES: 7 MAR 2008 HIGHEST RN 1007169-18-7

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REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

<http://www.cas.org/support/stngen/stndoc/properties.html>

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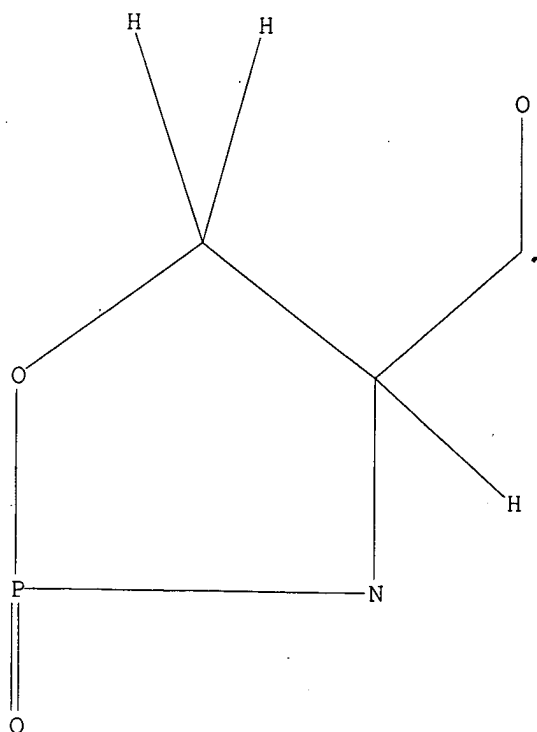
Uploading C:\Program Files\Stnexp\Queries\LC-1A9.str

L1 STRUCTURE UPLOADED

=> D L1

L1 HAS NO ANSWERS

L1 STR



Structure attributes must be viewed using STN Express query preparation.

=> S L1 FULL

FULL SEARCH INITIATED 11:06:44 FILE 'REGISTRY'

FULL SCREEN SEARCH COMPLETED - 162 TO ITERATE

100.0% PROCESSED 162 ITERATIONS

SEARCH TIME: 00.00.01

86 ANSWERS

L2 86 SEA SSS FUL L1

=> FILE CAPLUS

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

178.36

178.57

FILE 'CAPLUS' ENTERED AT 11:06:51 ON 09 MAR 2008

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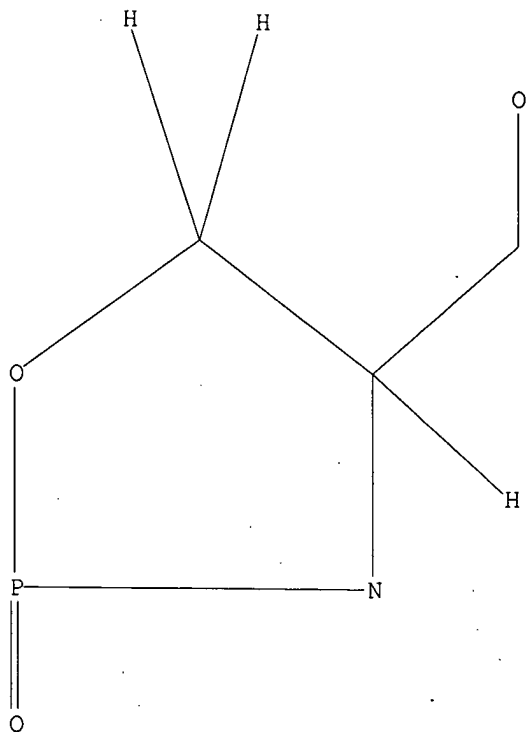
FILE COVERS 1907 - 9 Mar 2008 VOL 148 ISS 11

FILE LAST UPDATED: 7 Mar 2008 (20080307/ED)

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They are available for your review at:

<http://www.cas.org/infopolicy.html>

=> D L1  
L1 HAS NO ANSWERS  
L1 STR



Structure attributes must be viewed using STN Express query preparation.

=> S L2  
L3 30 L2

=> D L3 IBIB ABS HITSTR 1-30

L3 ANSWER 1 OF 30 CAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 2005:673309 CAPLUS  
DOCUMENT NUMBER: 143:153649  
TITLE: Sphingomyelin, intermediates thereof and methods for  
preparation of same  
INVENTOR(S): Rochlin, Elimelech; Hildesheim, Jean; Berlin, Alisa  
PATENT ASSIGNEE(S): Biolab Ltd., Israel  
SOURCE: PCT Int. Appl., 39 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005068480	A1	20050728	WO 2005-IL43	20050113

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW  
 RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

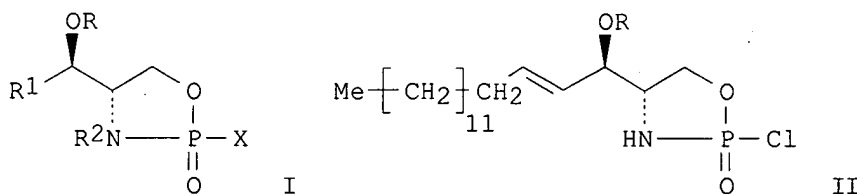
AU 2005205245 A1 20050728 AU 2005-205245 20050113  
 CA 2552797 A1 20050728 CA 2005-2552797 20050113  
 EP 1704155 A1 20060927 EP 2005-703086 20050113

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK, IS

JP 2007517860 T 20070705 JP 2006-548580 20050113  
 IN 2006DN03970 A 20070427 IN 2006-DN3970 20060710  
 US 2007282120 A1 20071206 US 2007-586056 20070611

PRIORITY APPLN. INFO.: US 2004-536507P P 20040115  
 WO 2005-IL43 W 20050113

OTHER SOURCE(S): CASREACT 143:153649; MARPAT 143:153649  
 GI



AB A process was disclosed for the preparation of oxazaphospholanes, such as I [R = hydroxyl protecting group; R1 = hydrophobic group; R2 = H, C1-24 aliphatic moiety; X = leaving group], which are useful intermediates for the synthesis of sphingomyelins. Thus, N-(tert-butoxycarbonyl)-D-erythro-sphingosine was reacted with ClSiPh<sub>2</sub>CMe<sub>3</sub> using imidazole in CH<sub>2</sub>Cl<sub>2</sub> to form N-(tert-Butoxycarbonyl)-O-(tert-butyldiphenylsilyl)-D-erythro-sphingosine in 56% yield. The N,O-diprotected sphingosine derivative was then reacted with POCl<sub>3</sub> using Et<sub>3</sub>N in CH<sub>2</sub>Cl<sub>2</sub> to give the intermediate oxazaphospholane II (R = SiPh<sub>2</sub>CMe<sub>3</sub>) which was further converted to N-palmitoylsphingosylphosphorylcholine in 31% yield via reaction with choline tosylate and palmitoyl chloride using Et<sub>3</sub>N in CH<sub>2</sub>Cl<sub>2</sub> and subsequent desilylation of the resulting O-silyl protected derivative with TBAF.

IT 860021-45-0P

RL: IMF (Industrial manufacture); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

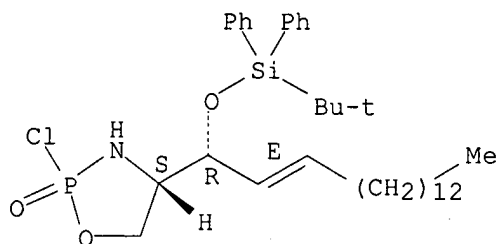
(process for the preparation of cyclic and acyclic oxazaphospholanes as intermediates for the synthesis of sphingomyelin and sphingomyelin analogs)

RN 860021-45-0 CAPLUS

CN 1,3,2-Oxazaphospholidine, 2-chloro-4-[(1R,2E)-1-[[[(1,1-dimethylethyl)diphenylsilyl]oxy]-2-hexadecenyl]-, 2-oxide, (4S)- (9CI)  
 (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.

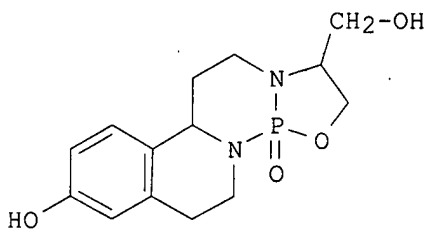


REFERENCE COUNT: 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 2 OF 30 CAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 2005:547244 CAPLUS  
 DOCUMENT NUMBER: 143:60137  
 TITLE: Preparation of phosphorous containing steroid mimics for diagnostic and therapeutic uses  
 INVENTOR(S): Rajagopalan, Raghavan  
 PATENT ASSIGNEE(S): Bioflexis, Llc, USA  
 SOURCE: U.S. Pat. Appl. Publ., 15 pp.  
 CODEN: USXXCO  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2005137170	A1	20050623	US 2004-992906	20041119
US 7294738	B2	20071113		
WO 2006055879	A2	20060526	WO 2005-US42071	20051118
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				

PRIORITY APPLN. INFO.: US 2003-523358P P 20031119  
 US 2004-992906 A 20041119  
 OTHER SOURCE(S): CASREACT 143:60137; MARPAT 143:60137  
 GI



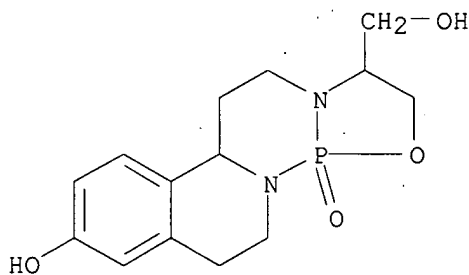
I

AB The present invention discloses novel steroid mimics, e.g. I, wherein a tri- or tetravalent phosphorous atom is isosterically substituted at any one of the seventeen positions occupied by the carbon atom in the steroidal skeleton, and wherein each adjacent position to the phosphorous is either unsubstituted or optionally substituted by nitrogen or an oxygen atom to satisfy the valency of said phosphorous atom (no data). The phosphorous atom may be trivalent or tetravalent, and may be radioactive or non-radioactive. Other positions in the steroid mimics may be optionally substituted alkyl, aryl, or other polar or non-polar functional groups to optimize biodistribution, receptor binding, and pharmacokinetic properties.

IT 854250-99-0P  
 RL: DGN (Diagnostic use); PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (preparation of phosphasteroids for diagnostic and therapeutic uses)

RN 854250-99-0 CAPLUS

CN 6H-[1,3,2]Oxazaphospholo[2',3':2,3][1,3,2]diazaphosphorino[6,1-a]isoquinoline-1-methanol, 1,2,7,11b,12,13-hexahydro-9-hydroxy-, 4-oxide (CA INDEX NAME)



REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 3 OF 30 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2000:578793 CAPLUS

DOCUMENT NUMBER: 133:296492

TITLE: Synthesis of chiral 2-oxo- and 2-thio-1,3,2-oxazaphospholidines via the asymmetric cyclization of L-serinoates with (thio)phosphoryl dichlorides

AUTHOR(S): He, Zheng-Jie; Chen, Wen-Bin; Zhou, Zheng-Hong; Tang, Chu-Chi

CORPORATE SOURCE: The State Key Laboratory of Elemento-Organic Chemistry, Institute of Elemento-Organic Chemistry, Nankai University, Tianjin, 300071, Peop. Rep. China

SOURCE: Synthetic Communications (2000), 30(18), 3473-3479  
 CODEN: SYNCAV; ISSN: 0039-7911

PUBLISHER: Marcel Dekker, Inc.

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 133:296492

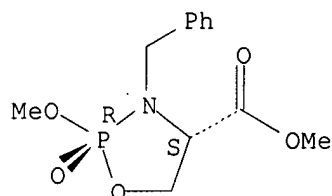
AB In this paper is described the asym. cyclization of L-serine derivs. with phosphoro(no-)dichloridates or their thio-analogs. The asym. induction effect of the chiral C center on the forming chiral P center was studied; the maximum %de was 63%. Some cyclization products were separated as a pure diastereomer and their configuration is preliminarily discussed.

IT 123621-74-9P 123621-76-1P 123673-00-7P  
 123673-02-9P 272774-33-1P 272774-34-2P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (asym. synthesis by cyclocondensation using serine derivative)

RN 123621-74-9 CAPLUS

CN 1,3,2-Oxazaphospholidine-4-carboxylic acid, 2-methoxy-3-(phenylmethyl)-, methyl ester, 2-oxide, (2R,4S)- (CA INDEX NAME)

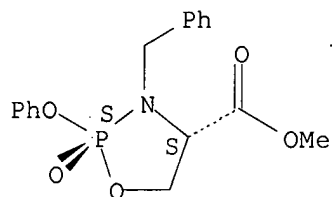
Absolute stereochemistry.



RN 123621-76-1 CAPLUS

CN 1,3,2-Oxazaphospholidine-4-carboxylic acid, 2-phenoxy-3-(phenylmethyl)-, methyl ester, 2-oxide, (2S,4S)- (CA INDEX NAME)

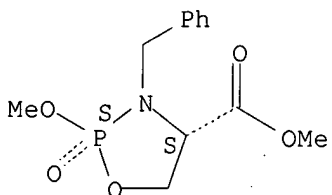
Absolute stereochemistry.



RN 123673-00-7 CAPLUS

CN 1,3,2-Oxazaphospholidine-4-carboxylic acid, 2-methoxy-3-(phenylmethyl)-, methyl ester, 2-oxide, (2S,4S)- (CA INDEX NAME)

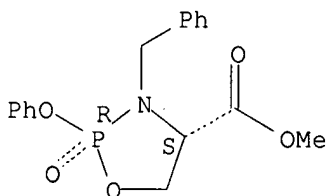
Absolute stereochemistry.



RN 123673-02-9 CAPLUS

CN 1,3,2-Oxazaphospholidine-4-carboxylic acid, 2-phenoxy-3-(phenylmethyl)-, methyl ester, 2-oxide, (2R,4S)- (CA INDEX NAME)

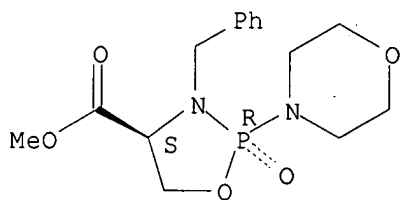
Absolute stereochemistry.



RN 272774-33-1 CAPLUS

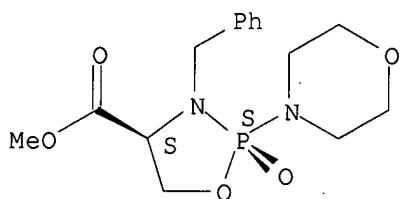
CN 1,3,2-Oxazaphospholidine-4-carboxylic acid, 2-(4-morpholinyl)-3-(phenylmethyl)-, methyl ester, 2-oxide, (2R,4S)- (CA INDEX NAME)

Absolute stereochemistry.



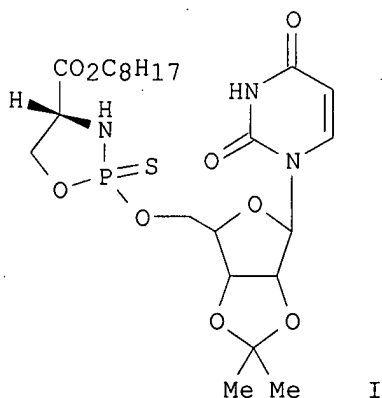
RN 272774-34-2 CAPLUS  
 CN 1,3,2-Oxazaphospholidine-4-carboxylic acid, 2-(4-morpholinyl)-3-(phenylmethyl)-, methyl ester, 2-oxide, (2S,4S)- (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 4 OF 30 CAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 2000:445972 CAPLUS  
 DOCUMENT NUMBER: 133:222941  
 TITLE: Synthesis of novel optically active cyclic phospholipid conjugates of Tegafur and uridine starting from L-serine  
 AUTHOR(S): He, Zheng-Jie; Chen, Wen-Bin; Zhang, Cheng-Xiang; Zhou, Zheng-Hong; Tang, Chu-Chi  
 CORPORATE SOURCE: The State Key Laboratory of Elemento-Organic Chemistry, Institute of Elemento-Organic Chemistry, Nankai University, Tianjin, 300071, Peop. Rep. China  
 SOURCE: Phosphorus, Sulfur and Silicon and the Related Elements (2000), 160, 223-232  
 CODEN: PSSLEC; ISSN: 1042-6507  
 PUBLISHER: Gordon & Breach Science Publishers  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 OTHER SOURCE(S): CASREACT 133:222941  
 GI



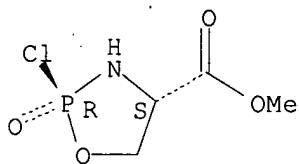
AB Starting from L-serine, cyclic thiophosphoramidate conjugates, e.g. I, of Tegafur and uridine were synthesized via a multiple-step procedure of esterification, cyclic phosphorylation, and sulfurization, etc. L-serinoate was N-alkylated, then cyclized with phosphorus oxychloride, and further reacted with N3-(2-hydroxyethyl) Tegafur to afford a cyclic phospholipid conjugate. The resultants title compds. were successfully separated in the form of pure diastereomer by column chromatog. on silica gel. Their configurations were discussed and assigned according to their NMR spectra. The asym. induction effects of the carbon-based chiral center on the diastereomer preference were also observed in these two synthetic phosphorylation cyclizations. The bioassay on their antitumor activities is under investigation.

IT 290815-83-7P 290815-86-0P  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (synthesis of cyclic phospholipid nucleosides of Tegafur and uridine starting from L-serine via cyclization and phosphorylation)

RN 290815-83-7 CAPLUS

CN 1,3,2-Oxazaphospholidine-4-carboxylic acid, 2-chloro-, methyl ester, 2-oxide, (2R,4S)- (CA INDEX NAME)

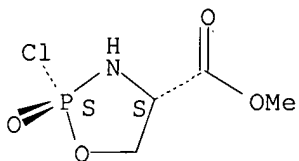
Absolute stereochemistry.



RN 290815-86-0 CAPLUS

CN 1,3,2-Oxazaphospholidine-4-carboxylic acid, 2-chloro-, methyl ester, 2-oxide, (2S,4S)- (CA INDEX NAME)

Absolute stereochemistry.

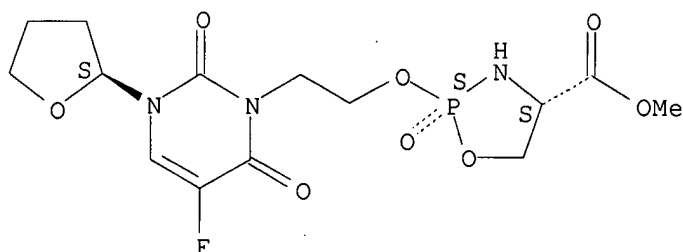


IT 290815-82-6P 290815-87-1P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (synthesis of cyclic phospholipid nucleosides of Tegafur and uridine starting from L-serine via cyclization and phosphorylation)

RN 290815-82-6 CAPLUS

CN 1,3,2-Oxazaphospholidine-4-carboxylic acid, 2-[2-[5-fluoro-3,6-dihydro-2,6-dioxo-3-[(2S)-tetrahydro-2-furanyl]-1'(2H)-pyrimidinyl]ethoxy]-, methyl ester, 2-oxide, (2S,4S)- (CA INDEX NAME)

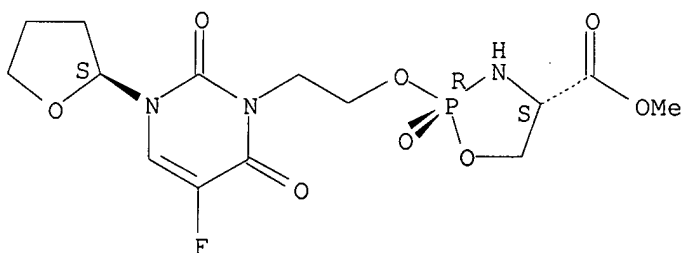
Absolute stereochemistry. Rotation (-).



RN 290815-87-1 CAPLUS

CN 1,3,2-Oxazaphospholidine-4-carboxylic acid, 2-[2-[5-fluoro-3,6-dihydro-2,6-dioxo-3-[(2S)-tetrahydro-2-furanyl]-1(2H)-pyrimidinyl]ethoxy]-, methyl ester, 2-oxide, (2R,4S)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



REFERENCE COUNT: 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 5 OF 30 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2000:270185 CAPLUS

DOCUMENT NUMBER: 133:17544

TITLE: Synthesis of chiral 2-oxo- and 2-thio-1,3,2-oxazaphospholidines via the asymmetric cyclization of L-serinoates with (thio)phosphoryl dichlorides

AUTHOR(S): He, Zheng-Jie; Chen, Wen-Bin; Zhou, Zheng-Hong; Tang, Chu-Chi

CORPORATE SOURCE: The State Key Laboratory of Elemento-Organic Chemistry, Institute of Elemento-Organic Chemistry, Nankai University, Tianjin, 300071, Peop. Rep. China

SOURCE: Heteroatom Chemistry (2000), 11(3), 187-191

CODEN: HETCE8; ISSN: 1042-7163

PUBLISHER: John Wiley & Sons, Inc.

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 133:17544

AB The authors have described the asym. cyclization of L-serinoates and N-benzyl L-serinoate with phosphoro(no-)dichloridates or their thio analogs, i.e.,  $RP(S)Cl_2$  ( $R = OCH_2CH_2Br, OEt$ ) or  $RP(O)Cl_2$  ( $R = Me, PhO, morpholino$ ), and also the authors have studied the asym. induction effect of the chiral C center on the formation of a chiral P center. The diastereomeric excesses (de%) of the desired products 2-oxo and 2-thio-1,3,2-oxazaphospholidines were obtained based on  $^{31}P$  NMR data. In some cases, the cyclization products were separated as pure diastereomers by column chromatog. Their configuration is preliminarily discussed.

IT 123621-74-9P 123621-76-1P 123673-00-7P

123673-02-9P 272774-33-1P 272774-34-2P

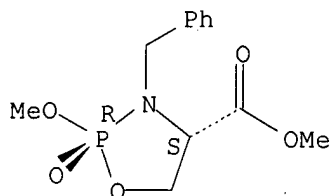
RL: PUR (Purification or recovery); SPN (Synthetic preparation); PREP (Preparation)

(preparation and separation of diastereomers by column chromatog.)

RN 123621-74-9 CAPLUS

CN 1,3,2-Oxazaphospholidine-4-carboxylic acid, 2-methoxy-3-(phenylmethyl)-, methyl ester, 2-oxide, (2R,4S)- (CA INDEX NAME)

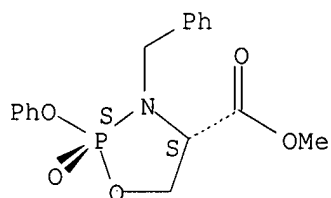
Absolute stereochemistry.



RN 123621-76-1 CAPLUS

CN 1,3,2-Oxazaphospholidine-4-carboxylic acid, 2-phenoxy-3-(phenylmethyl)-, methyl ester, 2-oxide, (2S,4S)- (CA INDEX NAME)

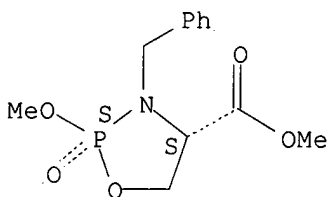
Absolute stereochemistry.



RN 123673-00-7 CAPLUS

CN 1,3,2-Oxazaphospholidine-4-carboxylic acid, 2-methoxy-3-(phenylmethyl)-, methyl ester, 2-oxide, (2S,4S)- (CA INDEX NAME)

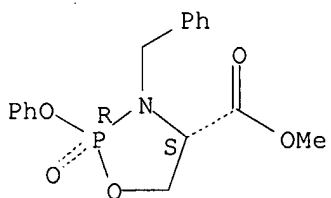
Absolute stereochemistry.



RN 123673-02-9 CAPLUS

CN 1,3,2-Oxazaphospholidine-4-carboxylic acid, 2-phenoxy-3-(phenylmethyl)-, methyl ester, 2-oxide, (2R,4S)- (CA INDEX NAME)

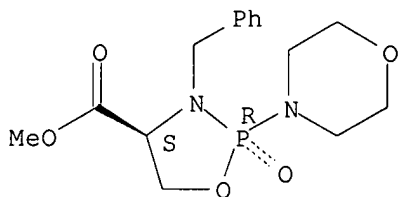
Absolute stereochemistry.



RN 272774-33-1 CAPLUS

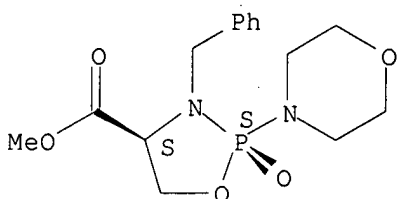
CN 1,3,2-Oxazaphospholidine-4-carboxylic acid, 2-(4-morpholinyl)-3-(phenylmethyl)-, methyl ester, 2-oxide, (2R,4S)- (CA INDEX NAME)

Absolute stereochemistry.



RN 272774-34-2 CAPLUS  
 CN 1,3,2-Oxazaphospholidine-4-carboxylic acid, 2-(4-morpholinyl)-3-(phenylmethyl)-, methyl ester, 2-oxide, (2S,4S)- (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 6 OF 30 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2000:177619 CAPLUS

DOCUMENT NUMBER: 132:322056

TITLE: Synthesis of novel optically active cyclic phospholipid conjugates of tegafur and uridine starting from L-serine

AUTHOR(S): He, Zheng-Jie; Chen, Wen-Bin; Zhang, Cheng-Xiang; Zhou, Zheng-Hong; Tang, Chu-Chi

CORPORATE SOURCE: The State Key Laboratory of Elemento-Organic Chemistry, Institute of Elemento-Organic Chemistry, Nankai University, Tianjin, 300071, Peop. Rep. China

SOURCE: Synthetic Communications (2000), 30(5), 903-909

CODEN: SYNCAV; ISSN: 0039-7911

PUBLISHER: Marcel Dekker, Inc.

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 132:322056

AB Starting from L-serine, cyclic phospholipids were synthesized and successfully separated in the form of pure diastereomer. Their configurations were discussed and assigned according to their NMR spectra data. The asym. induction effects were also observed in two phosphorylation cyclizations.

IT 266691-76-3P 266691-77-4P

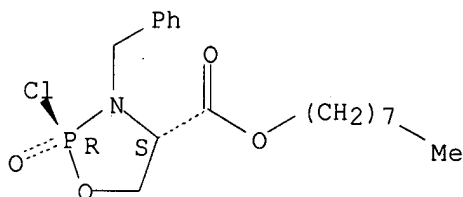
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(synthesis of novel optically active cyclic phospholipid conjugates of tegafur and uridine starting from L-serine)

RN 266691-76-3 CAPLUS

CN 1,3,2-Oxazaphospholidine-4-carboxylic acid, 2-chloro-3-(phenylmethyl)-, octyl ester, 2-oxide, (2R,4S)- (CA INDEX NAME)

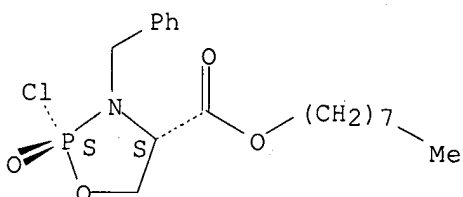
Absolute stereochemistry.



RN 266691-77-4 CAPLUS

CN 1,3,2-Oxazaphospholidine-4-carboxylic acid, 2-chloro-3-(phenylmethyl)-, octyl ester, 2-oxide, (2S,4S)- (CA INDEX NAME)

Absolute stereochemistry.



IT 266691-78-5P 266691-79-6P

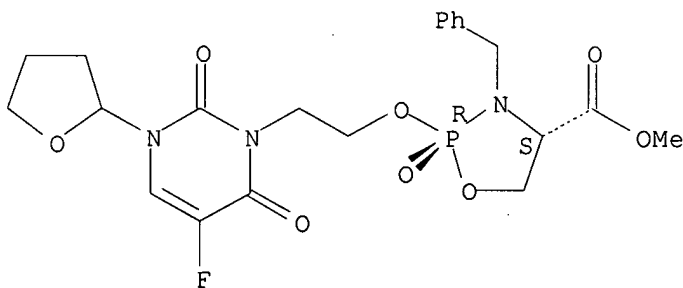
RL: SPN (Synthetic preparation); PREP (Preparation)

(synthesis of novel optically active cyclic phospholipid conjugates of tegafur and uridine starting from L-serine)

RN 266691-78-5 CAPLUS

CN 1,3,2-Oxazaphospholidine-4-carboxylic acid, 2-[2-[5-fluoro-3,6-dihydro-2,6-dioxo-3-(tetrahydro-2-furanyl)-1(2H)-pyrimidinyl]ethoxy]-3-(phenylmethyl)-, methyl ester, 2-oxide, (2R,4S)- (CA INDEX NAME)

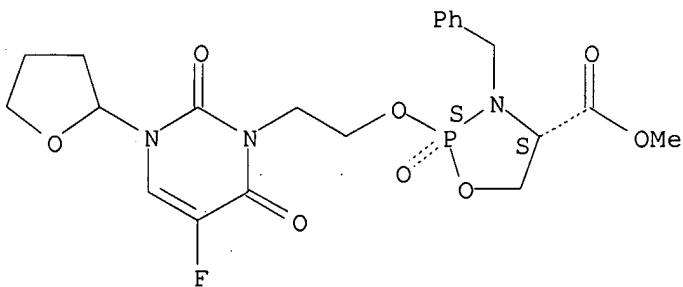
Absolute stereochemistry.



RN 266691-79-6 CAPLUS

CN 1,3,2-Oxazaphospholidine-4-carboxylic acid, 2-[2-[5-fluoro-3,6-dihydro-2,6-dioxo-3-(tetrahydro-2-furanyl)-1(2H)-pyrimidinyl]ethoxy]-3-(phenylmethyl)-, methyl ester, 2-oxide, (2S,4S)- (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 7 OF 30 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1999:606847 CAPLUS

DOCUMENT NUMBER: 131:337089

TITLE: Synthesis and quantitative structure-activity relationship of a new series of chiral 4-alkoxycarbonyl-2-(alkylamino)-1,3,2-oxa or thiazaphospholidine-2-ones

AUTHOR(S): Ali, Hussein M.; Mohamed, Khaled A.

CORPORATE SOURCE: Agricultural Biochemistry Department, Faculty of Agriculture, Ain Shams University, Cairo, 11241, Egypt

SOURCE: Heteroatom Chemistry (1999), 10(6), 475-480

CODEN: HETCE8; ISSN: 1042-7163

PUBLISHER: John Wiley & Sons, Inc.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Twenty-one of the chiral 4-alkoxycarbonyl-2-( $\alpha$ -alkyl- $\alpha$ -ethoxycarbonyl methylamino)-1,3,2-thia or oxazaphospholidine-2-ones were synthesized by cyclization of L-serine or L-cysteine Et or n-octyl ester with phosphoryl chloride followed by reaction with a suitable L-amino acid Et ester. <sup>1</sup>H NMR, IR, and mass spectra of these compds. are discussed. These compds. inhibited up to 68.52% of acetylcholinesterase (AChE) at the 1 ppm concentration level. Regression anal. showed that AChE inhibition was determined by both the steric and electronic effects of the alkyl groups of the amino acid. The enzyme inhibition correlated directly with the steric bulk of the alkyl groups, indicating a steric requirement for maximizing inhibitor-enzyme interaction and an inverse relation with the electron-donating ability of the alkyl groups. This supports the concept of a nucleophilic attack mechanism of a hydroxyl group of a serine amino acid in the enzyme active center on the partially pos. P atom of the oxazaphospholidines and thiazaphospholidines, with correlation coeffs. of 0.999 and 0.838, resp. Also the steric requirement was more important than the electronic factor in affecting the inhibition process, which explained the high activity of compds. containing the isoleucine moiety. The high AChE inhibition activity of these compds. and the expected nontoxic products of their in vivo hydrolysis make them eligible for pesticidal application.

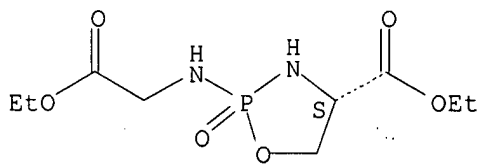
IT 249644-05-1P 249644-06-2P 249644-07-3P  
249644-08-4P 249644-09-5P 249644-10-8P  
249644-11-9P 249644-12-0P 249644-13-1P  
249644-14-2P 249644-15-3P 249644-16-4P  
249644-17-5P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)  
(preparation and acetylcholinesterase inhibition activity by)

RN 249644-05-1 CAPLUS

CN 1,3,2-Oxazaphospholidine-4-carboxylic acid, 2-[(2-ethoxy-2-oxoethyl)amino]-, ethyl ester, 2-oxide, (4S)- (CA INDEX NAME)

Absolute stereochemistry.

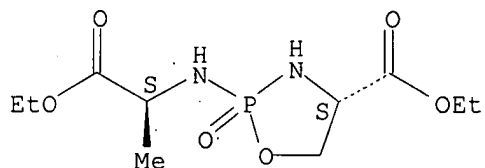


RN 249644-06-2 CAPLUS

CN 1,3,2-Oxazaphospholidine-4-carboxylic acid, 2-[(1S)-2-ethoxy-1-methyl-2-

oxoethyl]amino]-, ethyl ester, 2-oxide, (4S)- (CA INDEX NAME)

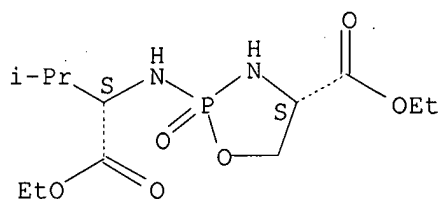
Absolute stereochemistry.



RN 249644-07-3 CAPLUS

CN 1,3,2-Oxazaphospholidine-4-carboxylic acid, 2-[[[(1S)-1-(ethoxycarbonyl)-2-methylpropyl]amino]-, ethyl ester, 2-oxide, (4S)- (CA INDEX NAME)

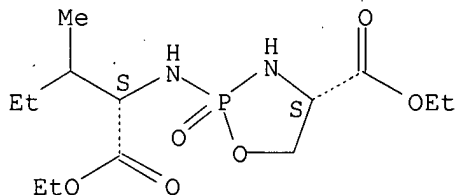
Absolute stereochemistry.



RN 249644-08-4 CAPLUS

CN 1,3,2-Oxazaphospholidine-4-carboxylic acid, 2-[[[(1S)-1-(ethoxycarbonyl)-2-methylbutyl]amino]-, ethyl ester, 2-oxide, (4S)- (CA INDEX NAME)

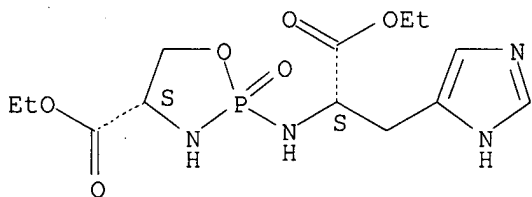
Absolute stereochemistry.



RN 249644-09-5 CAPLUS

CN 1,3,2-Oxazaphospholidine-4-carboxylic acid, 2-[[[(1S)-2-ethoxy-1-(1H-imidazol-4-ylmethyl)-2-oxoethyl]amino]-, ethyl ester, 2-oxide, (4S)- (9CI) (CA INDEX NAME)

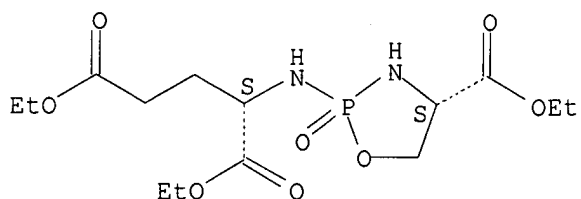
Absolute stereochemistry.



RN 249644-10-8 CAPLUS

CN L-Glutamic acid, N-[(4S)-4-(ethoxycarbonyl)-2-oxido-1,3,2-oxazaphospholidin-2-yl]-, diethyl ester (9CI) (CA INDEX NAME)

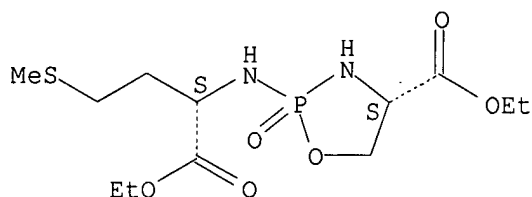
Absolute stereochemistry.



RN 249644-11-9 CAPLUS

CN 1,3,2-Oxazaphospholidine-4-carboxylic acid, 2-[[[(1S)-1-(ethoxycarbonyl)-3-(methylthio)propyl]amino]-, ethyl ester, 2-oxide, (4S)- (CA INDEX NAME)

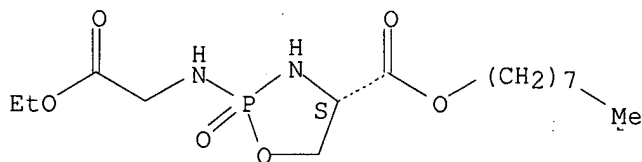
Absolute stereochemistry.



RN 249644-12-0 CAPLUS

CN 1,3,2-Oxazaphospholidine-4-carboxylic acid, 2-[(2-ethoxy-2-oxoethyl)amino]-, octyl ester, 2-oxide, (4S)- (CA INDEX NAME)

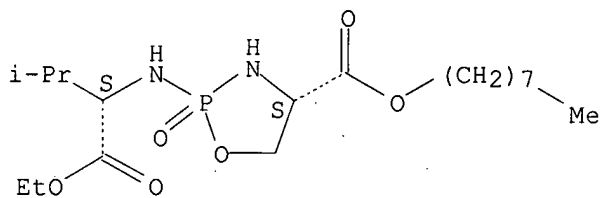
Absolute stereochemistry.



RN 249644-13-1 CAPLUS

CN 1,3,2-Oxazaphospholidine-4-carboxylic acid, 2-[[[(1S)-1-(ethoxycarbonyl)-2-methylpropyl]amino]-, octyl ester, 2-oxide, (4S)- (CA INDEX NAME)

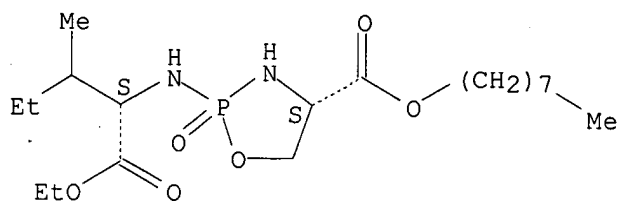
Absolute stereochemistry.



RN 249644-14-2 CAPLUS

CN 1,3,2-Oxazaphospholidine-4-carboxylic acid, 2-[[[(1S)-1-(ethoxycarbonyl)-2-methylbutyl]amino]-, octyl ester, 2-oxide, (4S)- (CA INDEX NAME)

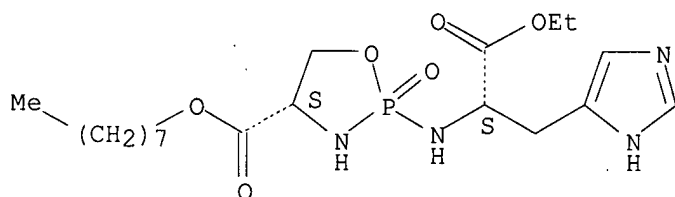
Absolute stereochemistry.



RN 249644-15-3 CAPLUS

CN 1,3,2-Oxazaphospholidine-4-carboxylic acid, 2-[[[(1S)-2-ethoxy-1-(1H-imidazol-4-ylmethyl)-2-oxoethyl]amino]-, octyl ester, 2-oxide, (4S)- (9CI)  
(CA INDEX NAME)

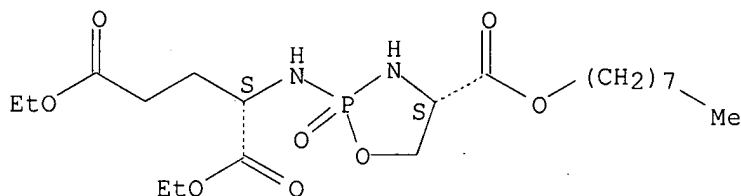
Absolute stereochemistry.



RN 249644-16-4 CAPLUS

CN L-Glutamic acid, N-[(4S)-4-[(octyloxy)carbonyl]-2-oxido-1,3,2-oxazaphospholidin-2-yl]-, diethyl ester (9CI) (CA INDEX NAME)

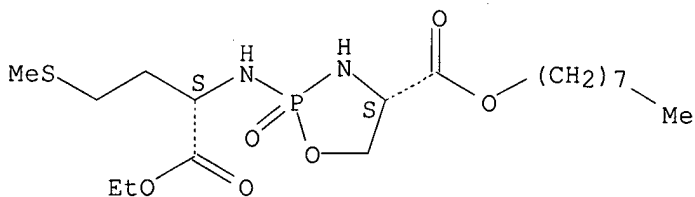
Absolute stereochemistry.



RN 249644-17-5 CAPLUS

CN 1,3,2-Oxazaphospholidine-4-carboxylic acid, 2-[[[(1S)-1-(ethoxycarbonyl)-3-(methylthio)propyl]amino]-, octyl ester, 2-oxide, (4S)- (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT:

18

THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 8 OF 30 CAPLUS COPYRIGHT 2008 ACS on STN

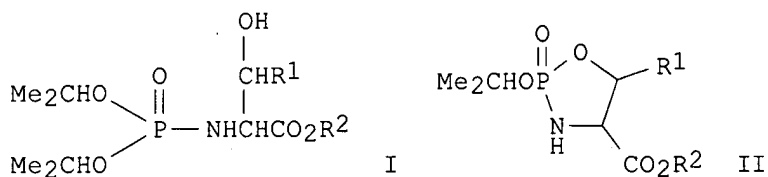
ACCESSION NUMBER: 1995:930488 CAPLUS

DOCUMENT NUMBER: 124:117920

TITLE: Reactions of N-phosphoryl serine and threonine and their esters catalyzed by imidazole

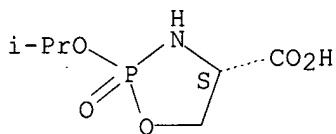
AUTHOR(S): Yan, Qing-Jin; Yin, Ying-Wu; Wang, Qian; Mao,

CORPORATE SOURCE: Qing-Qun; Zhao, Yu-Fen  
 Dep. of Chemistry, Tsinghua University, Beijing,  
 100084, Peop. Rep. China  
 SOURCE: Gaodeng Xuexiao Huaxue Xuebao (1995), 16(10), 1563-6  
 CODEN: KTHPDM; ISSN: 0251-0790  
 PUBLISHER: Gaodeng Jiaoyu Chubanshe  
 DOCUMENT TYPE: Journal  
 LANGUAGE: Chinese  
 GI



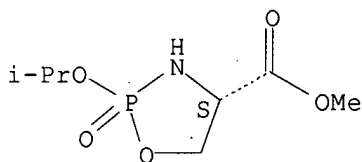
AB Reactions of N-phosphoryl serine and threonine and their esters I (R1, R2 = H, H; H, Me; Me, H; Me, Me) in the presence of imidazole gave phosphaoxazoles II. product was also detected. A new type of pentacoordinate phosphorus intermediate was proposed.  
 IT 173006-36-5P 173006-37-6P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (reactions of N-phosphoryl serine and threonine and their esters catalyzed by imidazole)  
 RN 173006-36-5 CAPLUS  
 CN 1,3,2-Oxazaphospholidine-4-carboxylic acid, 2-(1-methylethoxy)-, 2-oxide, (4S)- (CA INDEX NAME)

Absolute stereochemistry.



RN 173006-37-6 CAPLUS  
 CN 1,3,2-Oxazaphospholidine-4-carboxylic acid, 2-(1-methylethoxy)-, methyl ester, 2-oxide, (4S)- (CA INDEX NAME)

Absolute stereochemistry.



L3 ANSWER 9 OF 30 CAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 1995:545470 CAPLUS  
 DOCUMENT NUMBER: 123:228836  
 TITLE: differentiation between N-phosphoryl homoserine and serine  
 AUTHOR(S): Yan, Qing Jin; Yin, Ying Wu; Wang, Qian; Zhao, Yu Fen  
 CORPORATE SOURCE: Dep. Chem., Tsinghua Univ., Beijing, 100084, Peop. Rep. China

SOURCE: Chinese Chemical Letters (1995), 6(4), 267-70  
CODEN: CCLEE7  
PUBLISHER: Chinese Chemical Society  
DOCUMENT TYPE: Journal  
LANGUAGE: English

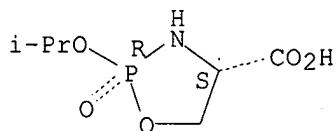
AB N-phosphoryl homo-serine is much more stable than the homologous phosphorylated serine. The latter readily undergoes N → O migration and formation of peptide and cyclophosphoroamidate on warming in alc. or chloroform at 40°. N-phosphoryl homo-serine undergoes limited ester exchange. A penta-coordinate phosphorus intermediate is proposed.

IT 168335-33-9P 168335-34-0P 168608-77-3P  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(reactivities of phosphoryl homoserine and phosphoryl serine)

RN 168335-33-9 CAPLUS

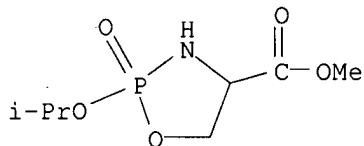
CN 1,3,2-Oxazaphospholidine-4-carboxylic acid, 2-(1-methylethoxy)-, 2-oxide, (2R-trans)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 168335-34-0 CAPLUS

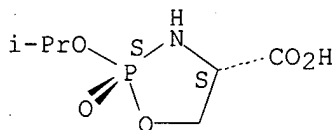
CN 1,3,2-Oxazaphospholidine-4-carboxylic acid, 2-(1-methylethoxy)-, methyl ester, 2-oxide (CA INDEX NAME)



RN 168608-77-3 CAPLUS

CN 1,3,2-Oxazaphospholidine-4-carboxylic acid, 2-(1-methylethoxy)-, 2-oxide, (2S-cis)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L3 ANSWER 10 OF 30 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1994:509464 CAPLUS

DOCUMENT NUMBER: 121:109464

TITLE: Synthesis of [32P] labeled 1-O-alkyl-2-desoxy-2-amino-sn-glycero-3-phosphocholines

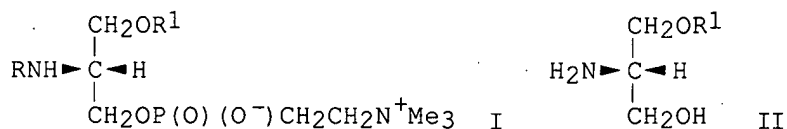
AUTHOR(S): Deigner, H. P.; Fyryns, B.

CORPORATE SOURCE: Pharm. Chem. Inst., Univ. Heidelberg, Heidelberg, 69120, Germany

SOURCE: Journal of Labelled Compounds and Radiopharmaceuticals (1994), 34(2), 185-9  
CODEN: JLCRD4; ISSN: 0362-4803

DOCUMENT TYPE:  
LANGUAGE:  
GI

Journal  
English



AB The syntheses of N-substituted 1-O-alkyl-2-deoxy-2-amino-sn-glycero-3-[<sup>32</sup>P]phosphocholines I [R = (Z)-MeCOCH:CH, MeCO; R<sup>1</sup> = Me(CH<sub>2</sub>)<sub>9</sub>, Me(CH<sub>2</sub>)<sub>15</sub>] were performed in four steps starting from [<sup>32</sup>P]-POCl<sub>3</sub> and the corresponding 1-O-alkyl-2-amino-propan-3-ols II in 5-7% total yield.

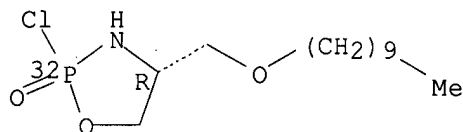
IT 156593-41-8P 156593-42-9P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(preparation and esterification of, with choline tosylate)

RN 156593-41-8 CAPLUS

CN 1,3,2-Oxazaphospholidine-2-<sup>32</sup>P, 2-chloro-4-[(decyloxy)methyl]-, 2-oxide, (4R)- (9CI) (CA INDEX NAME)

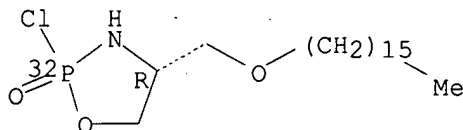
Absolute stereochemistry.



RN 156593-42-9 CAPLUS

CN 1,3,2-Oxazaphospholidine-2-<sup>32</sup>P, 2-chloro-4-[(hexadecyloxy)methyl]-, 2-oxide, (4R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



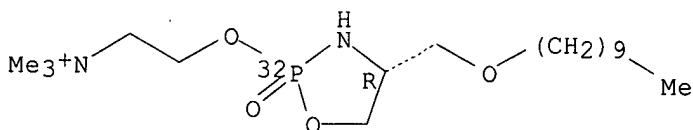
IT 156593-43-0P 156593-44-1P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(preparation and hydrolysis of)

RN 156593-43-0 CAPLUS

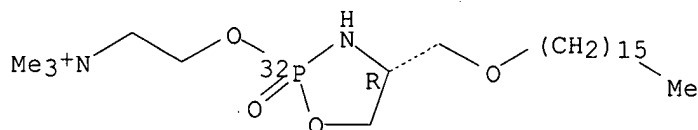
CN Ethanaminium, 2-[[4-[(decyloxy)methyl]-2-oxido-1,3,2-oxazaphospholidin-2-yl]oxy-2-<sup>32</sup>P]-N,N,N-trimethyl-, (4R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

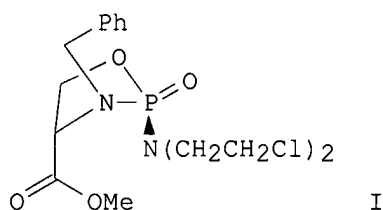


RN 156593-44-1 CAPLUS  
 CN Ethanaminium, 2-[[4-[(hexadecyloxy)methyl]-2-oxido-1,3,2-oxazaphospholidin-2-yl-2-<sup>32</sup>P]oxy]-N,N,N-trimethyl-, (4R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

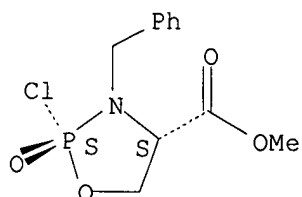


L3 ANSWER 11 OF 30 CAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 1993:213169 CAPLUS  
 DOCUMENT NUMBER: 118:213169  
 TITLE: Synthesis of chiral phosphorus mustards derived from serine  
 AUTHOR(S): Jackson, John A.; Frick, Jeffrey A.; Thompson, Charles M.  
 CORPORATE SOURCE: Dep. Chem., Loyola Univ. Chicago, Chicago, IL, 60626, USA  
 SOURCE: Bioorganic & Medicinal Chemistry Letters (1992), 2(12), 1547-50  
 CODEN: BMCLE8; ISSN: 0960-894X  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 OTHER SOURCE(S): CASREACT 118:213169  
 GI



AB The synthesis and biol. evaluation of chiral, diastereomeric phosphorus mustards, e.g., oxazaphospholidinone derivative I, derived from natural and unnatural serine are reported herein. Thus, serine was converted to N-benzyl Me serinoate and then reacted with POCl<sub>3</sub> to give a diastereomeric pair of 2-chlorooxazaphospholidin-2-one (II). Without purification, II reacted with bis(2-chloroethyl)amine to give I as a mixture of syn and anti diastereomers.  
 IT 123621-73-8P 123672-99-1P  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (preparation and P-amination of, with bis(chloroethyl)amine)  
 RN 123621-73-8 CAPLUS  
 CN 1,3,2-Oxazaphospholidine-4-carboxylic acid, 2-chloro-3-(phenylmethyl)-, methyl ester, 2-oxide, (2S-cis)- (9CI) (CA INDEX NAME)

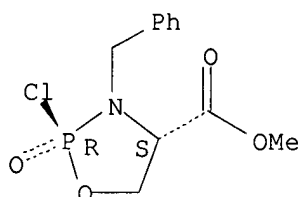
Absolute stereochemistry.



RN 123672-99-1 CAPLUS

CN 1,3,2-Oxazaphospholidine-4-carboxylic acid, 2-chloro-3-(phenylmethyl)-, methyl ester, 2-oxide, (2R-trans)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT 147102-78-1P 147200-96-2P 147200-97-3P

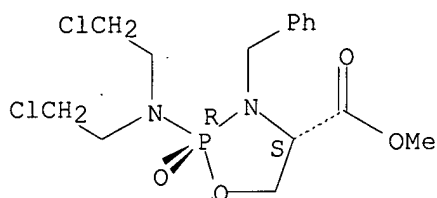
147200-98-4P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation, anti-cancer and anti-HIV activity of)

RN 147102-78-1 CAPLUS

CN 1,3,2-Oxazaphospholidine-4-carboxylic acid, 2-[bis(2-chloroethyl)amino]-3-(phenylmethyl)-, methyl ester, 2-oxide, (2R-trans)- (9CI) (CA INDEX NAME)

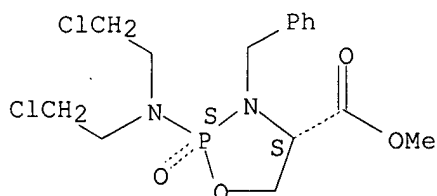
Absolute stereochemistry.



RN 147200-96-2 CAPLUS

CN 1,3,2-Oxazaphospholidine-4-carboxylic acid, 2-[bis(2-chloroethyl)amino]-3-(phenylmethyl)-, methyl ester, 2-oxide, (2S-cis)- (9CI) (CA INDEX NAME)

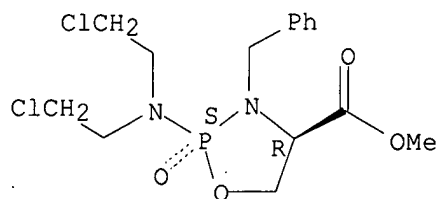
Absolute stereochemistry.



RN 147200-97-3 CAPLUS

CN 1,3,2-Oxazaphospholidine-4-carboxylic acid, 2-[bis(2-chloroethyl)amino]-3-(phenylmethyl)-, methyl ester, 2-oxide, (2S-trans)- (9CI) (CA INDEX NAME)

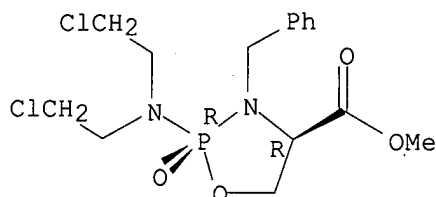
Absolute stereochemistry.



RN 147200-98-4 CAPLUS

CN 1,3,2-Oxazaphospholidine-4-carboxylic acid, 2-[bis(2-chloroethyl)amino]-3-(phenylmethyl)-, methyl ester, 2-oxide, (2R-cis)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L3 ANSWER 12 OF 30 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1993:59782 CAPLUS

DOCUMENT NUMBER: 118:59782

TITLE: Stereoselective and chemoselective oxidation of phosphorothionates using MMPP

AUTHOR(S): Jackson, John A.; Berkman, Clifford E.; Thompson, Charles M.

CORPORATE SOURCE: Dep. Chem., Loyola Univ., Chicago, IL, 60626, USA

SOURCE: Tetrahedron Letters (1992), 33(41), 6061-4

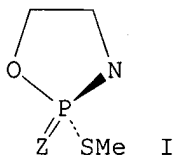
CODEN: TELEAY; ISSN: 0040-4039

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 118:59782

GI



AB MMPP (monoperoxyphthalic acid, magnesium salt) converts phosphorothionates  $R_1R_2P(S)X$  (e.g.,  $R_1 = R_2 = OMe$ ,  $X = OC_6H_4NO_2-4$ ) to the corresponding oxons  $R_1R_2P(O)X$  in good yield with excellent chemoselectivity and stereoselectivity. Also, treatment of thioxazaphospholidine I ( $Z = S$ ) with MMPP in  $CH_2Cl_2$  at reflux afforded I ( $Z = O$ ) in 62% isolated yield stereoselectively.

IT 145236-97-1P 145307-20-6P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

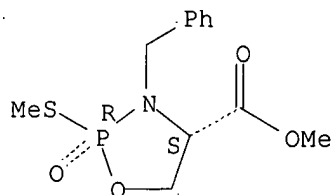
(preparation and stereoselective thionation of, with Lawesson's reagent)

RN 145236-97-1 CAPLUS

CN 1,3,2-Oxazaphospholidine-4-carboxylic acid, 2-(methylthio)-3-

(phenylmethyl)-, methyl ester, 2-oxide, (2R-trans)- (9CI) (CA INDEX NAME)

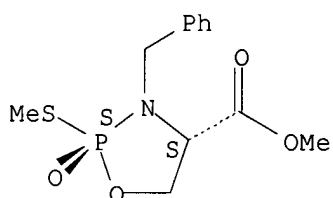
Absolute stereochemistry.



RN 145307-20-6 CAPLUS

CN 1,3,2-Oxazaphospholidine-4-carboxylic acid, 2-(methylthio)-3-(phenylmethyl)-, methyl ester, 2-oxide, (2S-cis)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L3 ANSWER 13 OF 30 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1992:426980 CAPLUS

DOCUMENT NUMBER: 117:26980

TITLE: Rapid synthesis of 2-desoxy-2-amino-3-phosphocholine-glycerinic-acid-alkylester, 1-alkyl-1-desoxy- and 1-O-alkyl-2-desoxy-2-amino-sn-glycero-3-phosphocholines, -3-phospho-N,N'-dimethylethanolamine and -3-phospho-Fmoc-serine-methylester

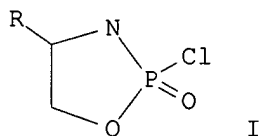
AUTHOR(S): Deigner, Hans Peter; Fyrnys, Beatrix  
CORPORATE SOURCE: Pharm.-Chem. Inst., Univ. Heidelberg, Heidelberg, D-6900, Germany

SOURCE: Chemistry and Physics of Lipids (1992), 61(2), 199-208  
CODEN: CPLIA4; ISSN: 0009-3084

DOCUMENT TYPE: Journal

LANGUAGE: English

GI



AB H<sub>2</sub>NCHRCH<sub>2</sub>OP(O)(O-)OCH<sub>2</sub>CH<sub>2</sub>NMe<sub>3</sub> [R = CO<sub>2</sub>(CH<sub>2</sub>)<sub>n</sub>Me, Bu, CH<sub>2</sub>O(CH<sub>2</sub>)<sub>p</sub>Me; n = 4, 7; p = 7, 9] were prepared from the alcs. H<sub>2</sub>NCHRCH<sub>2</sub>OH by cyclization with POCl<sub>3</sub>, reaction of the oxazaphospholanes I with choline tosylate, and hydrolysis. Me(CH<sub>2</sub>)<sub>9</sub>OCH<sub>2</sub>CH(NH<sub>2</sub>)CH<sub>2</sub>OP(O)(OH)OCH<sub>2</sub>CH<sub>2</sub>NMe<sub>2</sub> and Me(CH<sub>2</sub>)<sub>9</sub>OCH<sub>2</sub>CH(NH<sub>2</sub>)CH<sub>2</sub>OP(O)(OH)OCH<sub>2</sub>CH(NHR<sub>1</sub>)CO<sub>2</sub>Me (R<sub>1</sub> = 9-fluorenylmethoxycarbonyl) were similarly prepared

IT 141858-44-8P 141858-45-9P 141858-47-1P

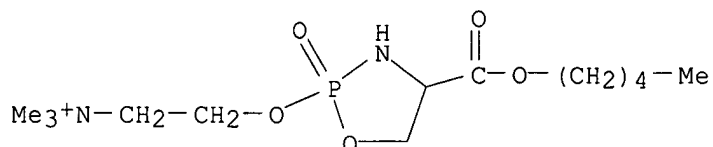
141858-48-2P 141858-59-5P 141858-63-1P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT

(Reactant or reagent)  
(preparation and hydrolysis of)

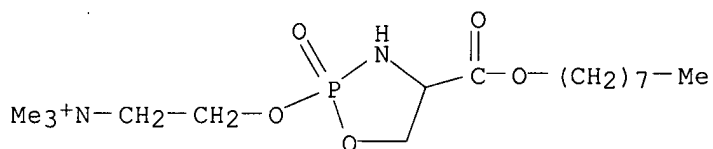
RN 141858-44-8 CAPLUS

CN Ethanaminium, N,N,N-trimethyl-2-[[2-oxido-4-[(pentyloxy)carbonyl]-1,3,2-oxazaphospholidin-2-yl]oxy]- (9CI) (CA INDEX NAME)



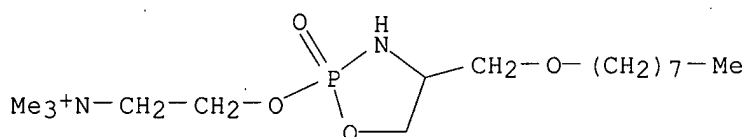
RN 141858-45-9 CAPLUS

CN Ethanaminium, N,N,N-trimethyl-2-[[4-[(octyloxy)carbonyl]-2-oxido-1,3,2-oxazaphospholidin-2-yl]oxy]- (9CI) (CA INDEX NAME)



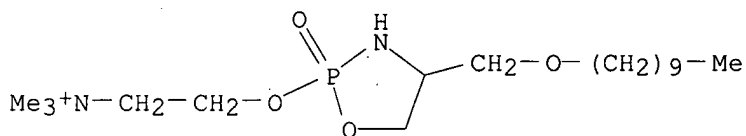
RN 141858-47-1 CAPLUS

CN Ethanaminium, N,N,N-trimethyl-2-[[4-[(octyloxy)methyl]-2-oxido-1,3,2-oxazaphospholidin-2-yl]oxy]- (9CI) (CA INDEX NAME)



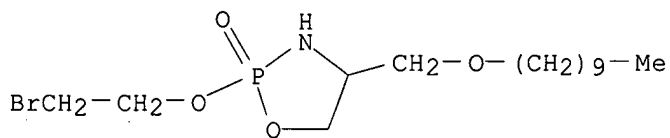
RN 141858-48-2 CAPLUS

CN Ethanaminium, 2-[[4-[(decyloxy)methyl]-2-oxido-1,3,2-oxazaphospholidin-2-yl]oxy]-N,N,N-trimethyl- (9CI) (CA INDEX NAME)



RN 141858-59-5 CAPLUS

CN 1,3,2-Oxazaphospholidine, 2-(2-bromoethoxy)-4-[(decyloxy)methyl]-, 2-oxide (CA INDEX NAME)

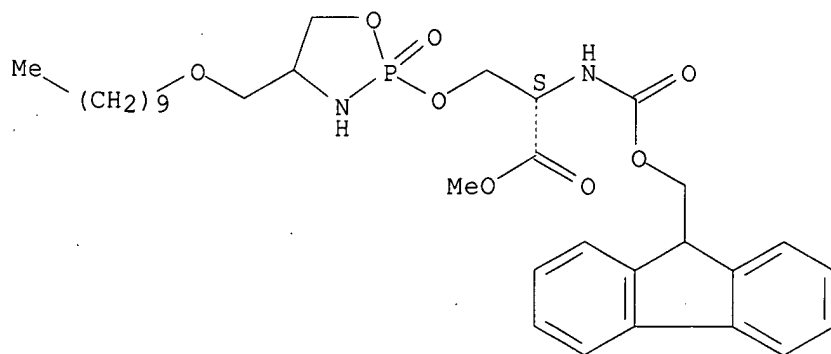


RN 141858-63-1 CAPLUS

CN L-Serine, O-[4-[(decyloxy)methyl]-2-oxido-1,3,2-oxazaphospholidin-2-yl]-N-

[(9H-fluoren-9-ylmethoxy)carbonyl]-, methyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



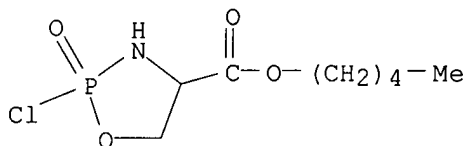
IT 141858-39-1P 141858-40-4P 141858-42-6P  
141858-43-7P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT  
(Reactant or reagent)

(preparation and reaction of, with choline tosylate)

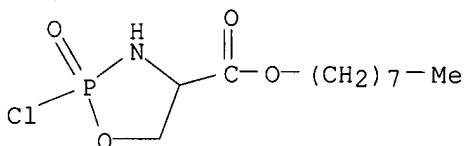
RN 141858-39-1 CAPLUS

CN 1,3,2-Oxazaphospholidine-4-carboxylic acid, 2-chloro-, pentyl ester,  
2-oxide (CA INDEX NAME)



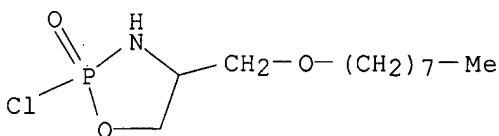
RN 141858-40-4 CAPLUS

CN 1,3,2-Oxazaphospholidine-4-carboxylic acid, 2-chloro-, octyl ester,  
2-oxide (CA INDEX NAME)



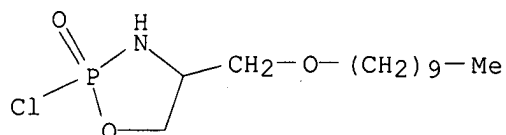
RN 141858-42-6 CAPLUS

CN 1,3,2-Oxazaphospholidine, 2-chloro-4-[(octyloxy)methyl]-, 2-oxide (CA  
INDEX NAME)

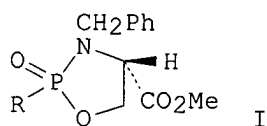


RN 141858-43-7 CAPLUS

CN 1,3,2-Oxazaphospholidine, 2-chloro-4-[(decyloxy)methyl]-, 2-oxide (CA  
INDEX NAME)



L3 ANSWER 14 OF 30 CAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 1990:36411 CAPLUS  
 DOCUMENT NUMBER: 112:36411  
 TITLE: Synthesis, configuration, and chemical shift correlations of chiral 1,3,2-oxazaphospholidin-2-ones derived from l-serine  
 AUTHOR(S): Thompson, Charles M.; Frick, Jeffrey A.; Green, Diana L. C.  
 CORPORATE SOURCE: Dep. Chem., Loyola Univ., Chicago, IL, 60626, USA  
 SOURCE: Journal of Organic Chemistry (1990), 55(1), 111-16  
 CODEN: JOCEAH; ISSN: 0022-3263  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 OTHER SOURCE(S): CASREACT 112:36411  
 GI



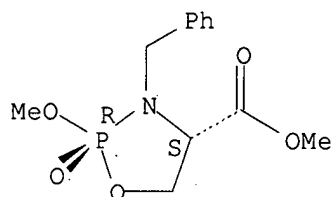
AB The reaction between PhCH<sub>2</sub>-Ser-OMe and POCl<sub>3</sub> leads to the diastereomeric chloro-1,3,2-oxazaphospholidin-2-ones I (R = Cl). Reaction of the chloridates with alcs. or phenols in the presence of base affords the corresponding alkoxy or aryloxy derivs. I (R = MeO, EtO, PhO, 4-O<sub>2</sub>NC<sub>6</sub>H<sub>4</sub>O) in 66-94% yields, which were readily separated by standard chromatog. methods. The stereochem. arrangement of these compds. was established by <sup>13</sup>C and <sup>31</sup>P NMR chemical shift correlations and by single-crystal x-ray anal. The trans geometry of the carbomethoxy and exocyclic phosphorus ligand resulted in approx. a 1 ppm upfield shift in the <sup>31</sup>P spectra relative to the cis isomer. The <sup>13</sup>C NMR spectra revealed an opposite trend in the heteroatom-bound alkyl region with most of the trans isomer signals appearing downfield (0.2-1.2 ppm) from the corresponding cis isomer.

IT 123621-74-9P 123621-75-0P 123621-76-1P  
 123621-77-2P 123673-00-7P 123673-01-8P  
 123673-02-9P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation and carbon-13 and phosphorus-31 NMR of)

RN 123621-74-9 CAPLUS

GN 1,3,2-Oxazaphospholidine-4-carboxylic acid, 2-methoxy-3-(phenylmethyl)-, methyl ester, 2-oxide, (2R,4S)- (CA INDEX NAME)

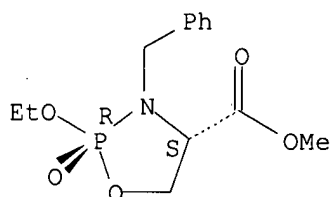
Absolute stereochemistry.



RN 123621-75-0 CAPLUS

CN 1,3,2-Oxazaphospholidine-4-carboxylic acid, 2-ethoxy-3-(phenylmethyl)-, methyl ester, 2-oxide, (2R-cis)- (9CI) (CA INDEX NAME)

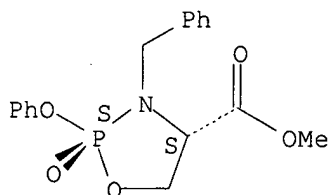
Absolute stereochemistry.



RN 123621-76-1 CAPLUS

CN 1,3,2-Oxazaphospholidine-4-carboxylic acid, 2-phenoxy-3-(phenylmethyl)-, methyl ester, 2-oxide, (2S,4S)- (CA INDEX NAME)

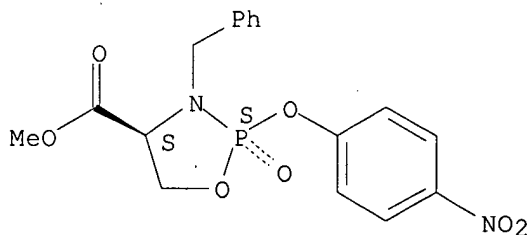
Absolute stereochemistry.



RN 123621-77-2 CAPLUS

CN 1,3,2-Oxazaphospholidine-4-carboxylic acid, 2-(4-nitrophenoxy)-3-(phenylmethyl)-, methyl ester, 2-oxide, (2S-cis)- (9CI) (CA INDEX NAME)

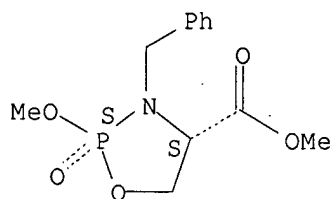
Absolute stereochemistry.



RN 123673-00-7 CAPLUS

CN 1,3,2-Oxazaphospholidine-4-carboxylic acid, 2-methoxy-3-(phenylmethyl)-, methyl ester, 2-oxide, (2S,4S)- (CA INDEX NAME)

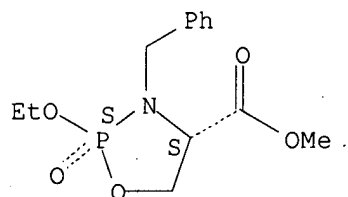
Absolute stereochemistry.



RN 123673-01-8 CAPLUS

CN 1,3,2-Oxazaphospholidine-4-carboxylic acid, 2-ethoxy-3-(phenylmethyl)-, methyl ester, 2-oxide, (2S-trans)- (9CI) (CA INDEX NAME)

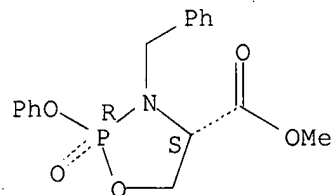
Absolute stereochemistry.



RN 123673-02-9 CAPLUS

CN 1,3,2-Oxazaphospholidine-4-carboxylic acid, 2-phenoxy-3-(phenylmethyl)-, methyl ester, 2-oxide, (2R,4S)- (CA INDEX NAME)

Absolute stereochemistry.



IT 123621-73-8P 123672-99-1P

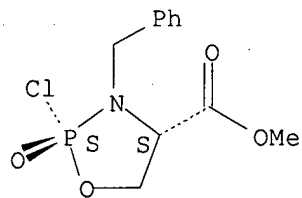
RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation, NMR, and substitution reactions of, with alcs. and phenols)

RN 123621-73-8 CAPLUS

CN 1,3,2-Oxazaphospholidine-4-carboxylic acid, 2-chloro-3-(phenylmethyl)-, methyl ester, 2-oxide, (2S-cis)- (9CI) (CA INDEX NAME)

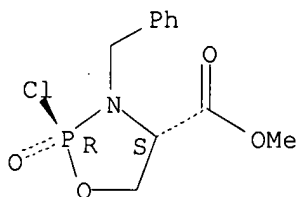
Absolute stereochemistry.



RN 123672-99-1 CAPLUS

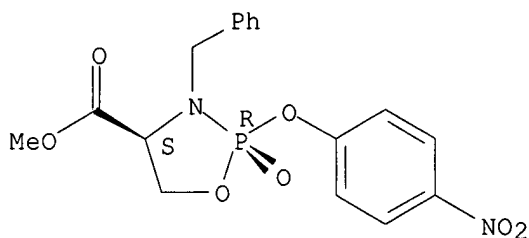
CN 1,3,2-Oxazaphospholidine-4-carboxylic acid, 2-chloro-3-(phenylmethyl)-, methyl ester, 2-oxide, (2R-trans)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



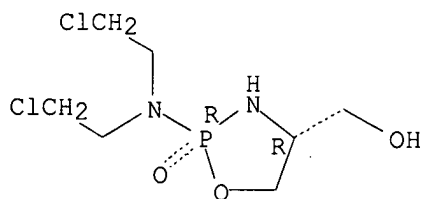
IT 123673-03-0P  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT  
 (Reactant or reagent)  
 (preparation, methanolysis, and carbon-13 and phosphorus-31 NMR of)  
 RN 123673-03-0 CAPLUS  
 CN 1,3,2-Oxazaphospholidine-4-carboxylic acid, 2-(4-nitrophenoxy)-3-  
 (phenylmethyl)-, methyl ester, 2-oxide, (2R-trans)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L3 ANSWER 15 OF 30 CAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 1988:112555 CAPLUS  
 DOCUMENT NUMBER: 108:112555  
 TITLE: Synthesis of N-Lost derivatives. II. Reaction of  
 N,N-bis(2-chloroethyl)phosphoramidic dichloride with  
 1-aminopropane-2,3-diol  
 AUTHOR(S): Lorenz, Peter; Wiessler, Manfred  
 CORPORATE SOURCE: Inst. Toxikol. Chemother., Dtsch.  
 Krebsforschungszent., Heidelberg, 6900, Fed. Rep. Ger.  
 SOURCE: Archiv der Pharmazie (Weinheim, Germany) (1986),  
 319(11), 1023-7  
 CODEN: ARPMAS; ISSN: 0365-6233  
 DOCUMENT TYPE: Journal  
 LANGUAGE: German  
 OTHER SOURCE(S): CASREACT 108:112555  
 GI For diagram(s), see printed CA Issue.  
 AB Cyclization of (ClCH2CH2)2NP(O)Cl2 with H2NCH2CH(OH)CH2OR (R = H, Ph,  
 CH2Ph) gave oxazaphospholanones I.  
 IT 105847-70-9P 105847-71-0P 105847-72-1P  
 105847-73-2P  
 RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)  
 (preparation and spectra of)  
 RN 105847-70-9 CAPLUS  
 CN 1,3,2-Oxazaphospholidine-4-methanol, 2-[bis(2-chloroethyl)amino]-,  
 2-oxide, cis- (9CI) (CA INDEX NAME)

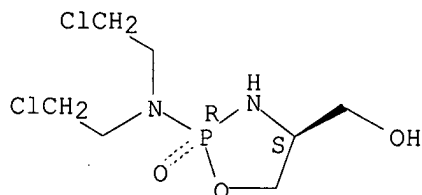
Relative stereochemistry.



RN 105847-71-0 CAPLUS

CN 1,3,2-Oxazaphospholidine-4-methanol, 2-[bis(2-chloroethyl)amino]-, 2-oxide, trans- (9CI) (CA INDEX NAME)

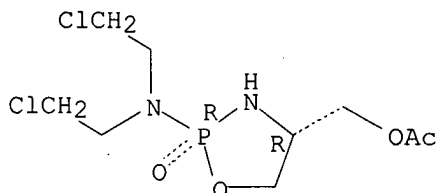
Relative stereochemistry.



RN 105847-72-1 CAPLUS

CN 1,3,2-Oxazaphospholidine-4-methanol, 2-[bis(2-chloroethyl)amino]-, acetate (ester), 2-oxide, cis- (9CI) (CA INDEX NAME)

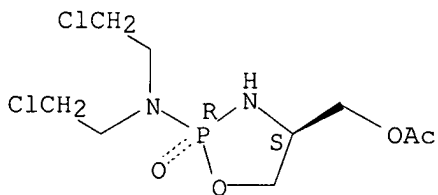
Relative stereochemistry.



RN 105847-73-2 CAPLUS

CN 1,3,2-Oxazaphospholidine-4-methanol, 2-[bis(2-chloroethyl)amino]-, acetate (ester), 2-oxide, trans- (9CI) (CA INDEX NAME)

Relative stereochemistry.



L3 ANSWER 16 OF 30 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1980:471200 CAPLUS

DOCUMENT NUMBER: 93:71200

ORIGINAL REFERENCE NO.: 93:11565a,11568a

TITLE: Tumor chemotherapy. XXXVIII. Synthesis of chloramphenicol analogs

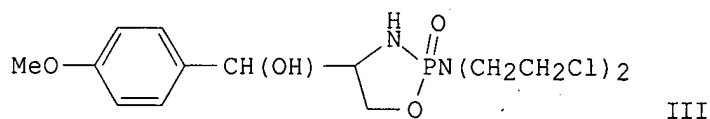
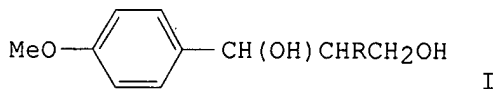
AUTHOR(S): Zheng, Yi-Ya; Kao, Yee-Sheng

CORPORATE SOURCE: Dep. Chem., Zhong-Shan Univ., Canton, Peop. Rep. China

SOURCE: Yaoxue Xuebao (1979), 14(10), 628-31

DOCUMENT TYPE: Journal  
 LANGUAGE: Chinese  
 GI

CODEN: YHHPAL; ISSN: 0513-4870

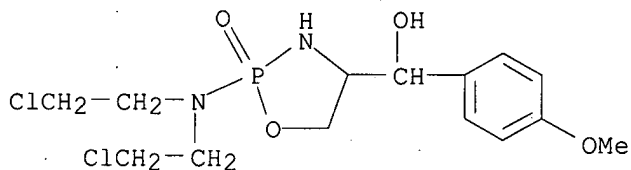


AB The title compds. I [R = N:CHC6H3[N(CH2CH2Cl)2]R1-4,2; R1 = H, Me (II), OMe; NHCOCH2OC6H3Cl2-2,4, NHCOCH2OC6H2Cl3-2,4,5] and III were prepared by condensation of I (R = NH2) with the corresponding aldehydes, acyl chlorides and Cl2P(O)N(CH2CH2Cl)2. II possessed a moderate inhibiting action against S-180 in mice.

IT 74020-72-7P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation of)

RN 74020-72-7 CAPLUS

CN 1,3,2-Oxazaphospholidine-4-methanol, 2-[bis(2-chloroethyl)amino]- $\alpha$ -(4-methoxyphenyl)-, 2-oxide (CA INDEX NAME)



L3 ANSWER 17 OF 30 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1978:500002 CAPLUS

DOCUMENT NUMBER: 89:100002

ORIGINAL REFERENCE NO.: 89:15175a,15178a

TITLE: Synthesis and antitumor evaluation of 4-ethoxycarbonyl cyclophosphamide analogs

AUTHOR(S): Foster, Emerson L.

CORPORATE SOURCE: VA Hosp., Indianapolis, IN, USA

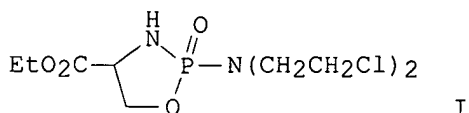
SOURCE: Journal of Pharmaceutical Sciences (1978), 67(5), 709-10

CODEN: JPMSAE; ISSN: 0022-3549

DOCUMENT TYPE: Journal

LANGUAGE: English

GI

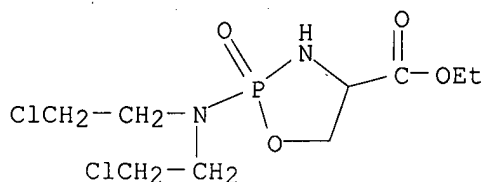


AB 4-Ethoxycarbonyl analogs of cyclophosphamide and its five-membered ring homolog were synthesized utilizing the cyclization method previously described. N,N-bis(2-chloroethyl)-4-ethoxycarbonyl-1,3,2-oxazaphospholidine-2-amine-2-oxide (I) [7521-84-8] demonstrated activity against L-1210 lymphoid leukemia whereas N,N-bis(2-chloroethyl)-4-(ethoxycarbonyl)tetrahydro-2H-1,3,2-oxazaphosphorin-2-amine 2-oxide [67345-22-6] did not. The oxazaphosphorin-2-amine also was not effective against human epidermoid carcinoma of the nasopharynx (cell culture).

IT 7521-84-8P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation of and neoplasm inhibition by)

RN 7521-84-8 CAPLUS

CN 1,3,2-Oxazaphospholidine-4-carboxylic acid, 2-[bis(2-chloroethyl)amino]-, ethyl ester, 2-oxide (CA INDEX NAME)



L3 ANSWER 18 OF 30 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1974:83602 CAPLUS

DOCUMENT NUMBER: 80:83602

ORIGINAL REFERENCE NO.: 80:13465a,13468a

TITLE: New cyclophosphamide analogs derived from hydroxyamino acids and some peptides thereof

AUTHOR(S): Szekerke, M.

CORPORATE SOURCE: Inst. Org. Chem., Eotvos Lorand Univ., Budapest, Hung.

SOURCE: Annales Universitatis Scientiarum Budapestinensis de Rolando Eotvos Nominatae, Sectio Chimica (1972), No. 13, 57-67  
 CODEN: ABRCAW; ISSN: 0365-088X

DOCUMENT TYPE: Journal

LANGUAGE: English

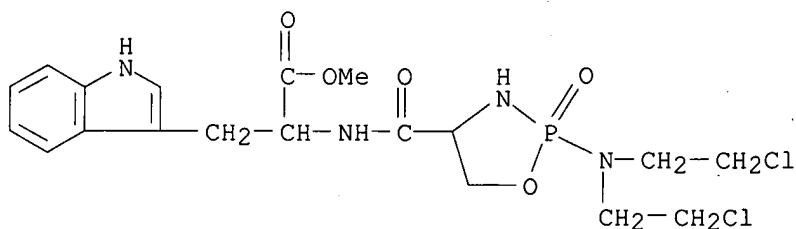
GI For diagram(s), see printed CA Issue.

AB Phosphorodiamidic ester I-V (R = 4-O<sub>2</sub>NC<sub>6</sub>H<sub>4</sub>, H, Ph; R<sub>1</sub> = H, Et, Me; R<sub>2</sub> = PhCH<sub>2</sub>, Me<sub>2</sub>CH, 3-indolylmethyl; R<sub>3</sub> = H, Ph) (10 compds.) containing Ser-Ser, Ser-Tyr, Ser-Trp, Ser-Phe, Ser-Val were prepared. The dipeptides were prepared by the usual coupling methods and were coupled with (ClCH<sub>2</sub>CH<sub>2</sub>)<sub>2</sub>NP(O)Cl<sub>2</sub> to give I-V.

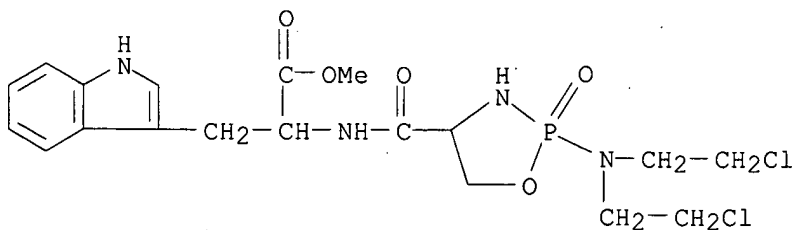
IT 51482-27-0P 51550-19-7P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation of)

RN 51482-27-0 CAPLUS

CN L-Tryptophan, N-[[2-[bis(2-chloroethyl)amino]-2-oxido-1,3,2-oxazaphospholidin-4-yl]carbonyl]-, methyl ester, (S)- (9CI) (CA INDEX NAME)



RN 51550-19-7 CAPLUS  
 CN L-Tryptophan, N-[[2-[bis(2-chloroethyl)amino]-2-oxido-1,3,2-oxazaphospholidin-4-yl]carbonyl]-, methyl ester, (R)- (9CI) (CA INDEX NAME)



L3 ANSWER 19 OF 30 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1968:3164 CAPLUS

DOCUMENT NUMBER: 68:3164

ORIGINAL REFERENCE NO.: 68:631a, 634a

TITLE: Synthesis of stereoisomeric 1,3,2-oxazaphospholane derivatives

AUTHOR(S): Kaz'mina, N. B.; Knunyants, I. L.

CORPORATE SOURCE: Inst. Elementoorg. Soed., Moscow, USSR

SOURCE: Izvestiya Akademii Nauk SSSR, Seriya Khimicheskaya (1967), (4), 913-15

CODEN: IASKA6; ISSN: 0002-3353

DOCUMENT TYPE: Journal

LANGUAGE: Russian

GI For diagram(s), see printed CA Issue.

AB dl-Serine benzyl ester and (ClCH<sub>2</sub>CH<sub>2</sub>)<sub>2</sub>NP(O)Cl<sub>2</sub> followed by hydrogenation gave 50% high-melting isomer of I (R = H), decomposing at 160° (MeOH); it is precipitated by acids from its Na salt and gives a color test with ninhydrin only after prolonged heating. The residual mother liquor after separation of this I isomer gave on evaporation about 25% low-melting isomer of I,

decomposing at 147-8°, which was more soluble in organic solvents but which gave a ninhydrin color test also very slowly. C<sub>6</sub>H<sub>11</sub>NH<sub>2</sub> gave the corresponding salts with high-melting I, m. 88° (monohydrate) or decomposed at 150° (anhydrous), and with low-melting I, decomposed at 153°. Both salts regenerated the appropriate I on being acidified with HCl. High-melting I and CH<sub>2</sub>N<sub>2</sub> gave I (R = Me), m. 96°; low-melting I similarly gave the analog I (R = Me) which could not be crystallized and remained as an oil. The isomeric I had different mobilities on Al<sub>2</sub>O<sub>3</sub>. The geometric configurations of isomeric I were not determined but with dl-serine as the starting material the above pair of isomers of I (R = H) are actually a pair of racemates in which the substituents at the P atom have cis and trans positions relative to CO<sub>2</sub>H group in the ring.

IT 16398-86-0P 16398-87-1P 16398-88-2P

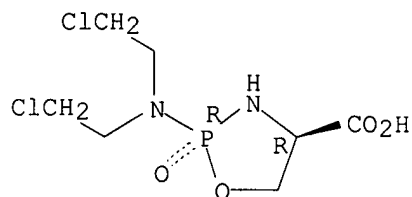
16398-89-3P 18822-54-3P 18883-61-9P

RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation of)

RN 16398-86-0 CAPLUS

CN 1,3,2-Oxazaphospholidine-4-carboxylic acid, 2-[bis(2-chloroethyl)amino]-, 2-oxide, cis-(±)- (8CI) (CA INDEX NAME)

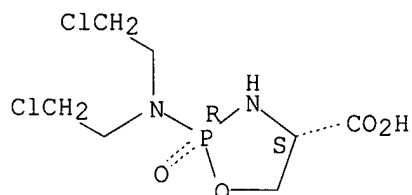
Relative stereochemistry.



RN 16398-87-1 CAPLUS

CN 1,3,2-Oxazaphospholidine-4-carboxylic acid, 2-[bis(2-chloroethyl)amino]-, 2-oxide, trans-(±)- (8CI) (CA INDEX NAME)

Relative stereochemistry.



RN 16398-88-2 CAPLUS

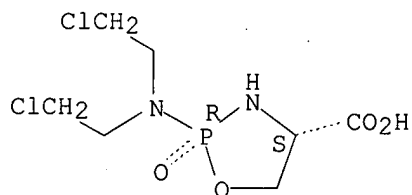
CN 1,3,2-Oxazaphospholidine-4-carboxylic acid, 2-[bis(2-chloroethyl)amino]-, 2-oxide, compd. with cyclohexylamine (1:1), cis-(±)- (8CI) (CA INDEX NAME)

CM 1

CRN 16398-87-1

CMF C7 H13 Cl2 N2 O4 P

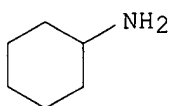
Relative stereochemistry.



CM 2

CRN 108-91-8

CMF C6 H13 N



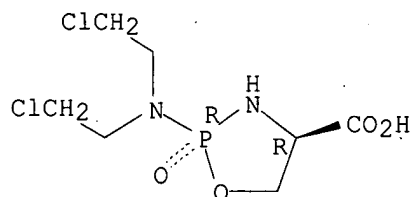
RN 16398-89-3 CAPLUS

CN 1,3,2-Oxazaphospholidine-4-carboxylic acid, 2-[bis(2-chloroethyl)amino]-, 2-oxide, compd. with cyclohexylamine (1:1), trans-(±)- (8CI) (CA INDEX NAME)

CM 1

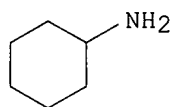
CRN 16398-86-0  
CMF C7 H13 Cl2 N2 O4 P

Relative stereochemistry.



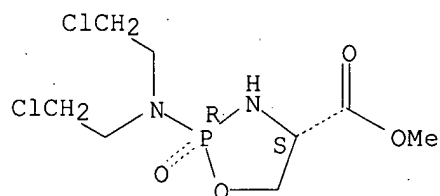
CM 2

CRN 108-91-8  
CMF C6 H13 N



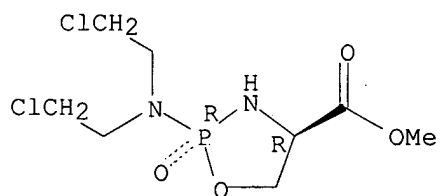
RN 18822-54-3 CAPLUS  
CN 1,3,2-Oxazaphospholidine-4-carboxylic acid, 2-[bis(2-chloroethyl)amino]-, methyl ester, 2-oxide, DL-trans- (8CI) (CA INDEX NAME)

Relative stereochemistry.



RN 18883-61-9 CAPLUS  
CN 1,3,2-Oxazaphospholidine-4-carboxylic acid, 2-[bis(2-chloroethyl)amino]-, methyl ester, 2-oxide, DL-cis- (8CI) (CA INDEX NAME)

Relative stereochemistry.



L3 ANSWER 20 OF 30 CAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1966:438767 CAPLUS  
DOCUMENT NUMBER: 65:38767  
ORIGINAL REFERENCE NO.: 65:7262h,7263a  
TITLE: Procedure for the selective modification of carboxyl

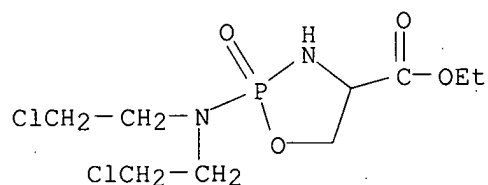
groups in proteins  
 AUTHOR(S): Hoare, D. G.; Koshland, D. E., Jr.  
 CORPORATE SOURCE: Brookhaven Natl. Lab., Upton, NY  
 SOURCE: Journal of the American Chemical Society (1966),  
 88(9), 2057-8  
 CODEN: JACSAT; ISSN: 0002-7863  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 OTHER SOURCE(S): CASREACT 65:38767

AB A procedure involving a H<sub>2</sub>O-soluble carbodiimide and a modifying reagent leading to rapid and quant. modification of carboxyl groups under mild conditions was reported. Kinetic studies with simple carboxylic acids led to conditions giving quant. yields. N-Benzyl-N'-3-dimethylaminopropylcarbodiimide and glycine methyl ester were used as the carbodiimide and the modifying reagent, resp. The reaction was then tested with chymotrypsin and trypsin.

IT 7521-84-8  
 (Derived from data in the 7th Collective Formula Index (1962-1966))

RN 7521-84-8 CAPLUS

CN 1,3,2-Oxazaphospholidine-4-carboxylic acid, 2-[bis(2-chloroethyl)amino]-, ethyl ester, 2-oxide (CA INDEX NAME)



L3 ANSWER 21 OF 30 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1966:438766 CAPLUS

DOCUMENT NUMBER: 65:38766

ORIGINAL REFERENCE NO.: 65:7261g-h, 7262g-h

TITLE: Potential anticancer agents. III. Preparation of amino acid derivatives of bis(β-chloroethyl)phosphoramidic dichloride

AUTHOR(S): Sung, Wei-Liang; Hou, Shang-Chou; Chao, Han-Fei; Yang, Ching-Hua; Ku, Hsiao Hsien

CORPORATE SOURCE: Chinese Acad. Med. Sci., Peking

SOURCE: Yaoxue Xuebao (1966), 13(2), 126-30

CODEN: YHHPAL; ISSN: 0513-4870

DOCUMENT TYPE: Journal

LANGUAGE: Chinese

GI For diagram(s), see printed CA Issue.

AB cf. CA 64, 9626a. Since malignant tumors have higher phosphamidase activities than the normal tissues, it would be possible to use phosphoramidic nitrogen mustard derivs. to carry such a cytotoxic agent preferentially to the tumor tissues. Amino acid derivs. of Cl<sub>2</sub>P(O)N(CH<sub>2</sub>CH<sub>2</sub>Cl)<sub>2</sub> were prepared to test whether the N-phosphorylated amino acid moiety would function as the carrier of nitrogen mustard derivs. to malignant cells. Such compds. can be prepared with 2 equivs. of Et ester on several amino acids in an inert solvent with Et<sub>3</sub>N. Reaction of Cl<sub>2</sub>P(O)OH with an equivalent of serine Et ester yielded a cyclic derivative (ClCH<sub>2</sub>CH<sub>2</sub>)<sub>2</sub>-NP(O)(NHCHRCO<sub>2</sub>Et)<sub>2</sub> prepared were (R and % yield (given)): H, 80 (m. 88-90°); Me, 88 (n<sub>26D</sub> 1.4819); iso-Pr, 53 (n<sub>20D</sub> 1.4800); iso-Bu, 63 (n<sub>19D</sub> 1.4766); PhCH<sub>2</sub>, 25 (m. 113-15°); CH<sub>2</sub>CO<sub>2</sub>Et, 85 (n<sub>28D</sub> 1.4800); CH<sub>2</sub>CH<sub>2</sub>CO<sub>2</sub>Et, 49 (m. 85-6.5°). Also prepared was I, 74% yield n<sub>2175D</sub> 1.4971.

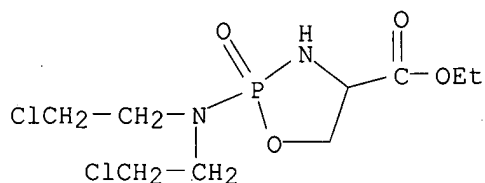
IT 7521-84-8P, 1,3,2-Oxazaphospholidine-4-carboxylic acid, 2-[bis(2-chloroethyl)amino]-, ethyl ester, 2-oxide 889876-03-3P,

Serine, N-[[bis(2-chloroethyl)amino]hydroxyphosphinyl]-, intramol. ester, Et ester

RL: PREP (Preparation)  
(preparation of)

RN 7521-84-8 CAPLUS

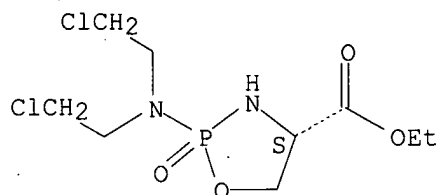
CN 1,3,2-Oxazaphospholidine-4-carboxylic acid, 2-[bis(2-chloroethyl)amino]-, ethyl ester, 2-oxide (CA INDEX NAME)



RN 889876-03-3 CAPLUS

CN INDEX NAME NOT YET ASSIGNED

Absolute stereochemistry.



L3 ANSWER 22 OF 30 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1966:68183 CAPLUS

DOCUMENT NUMBER: 64:68183

ORIGINAL REFERENCE NO.: 64:12787b-f

TITLE: Serine, serylserine, and polyserine derivatives carrying cytotoxic groups

AUTHOR(S): Szekerke, Maria; Csaszar, Janos; Bruckner, Viktor

CORPORATE SOURCE: L. Eotvos Univ., Budapest

SOURCE: Acta Chimica Academiae Scientiarum Hungaricae (1966), 46(4), 379-90

CODEN: ACASA2; ISSN: 0001-5407

DOCUMENT TYPE: Journal

LANGUAGE: German

GI For diagram(s), see printed CA Issue.

AB Toxicity was assayed with a subcutaneous Yoshida sarcoma. The larger polymers were more active than the smaller mols., and the configuration at the asym. centers influenced the activity. A solution of 0.01 mole N-cbz-Ser-Ser-OCH<sub>2</sub>Ph (cbz = PhCH<sub>2</sub>O<sub>2</sub>C) in 60 ml. dioxane (0°) was treated for 2 days at room temperature with 0.02 ml. Et<sub>3</sub>N and 0.01 mole (ClCH<sub>2</sub>CH<sub>2</sub>)<sub>2</sub>NPOCl<sub>2</sub> (I). After filtration of the Et<sub>3</sub>N.HCl, the solvent was removed in vacuo and the residual yellow oil hydrogenated in 10% alc. HCl with Pd-C for 6-8 hrs. to give 80% II.HCl, R<sub>f</sub> = 0.65 in 20:40:4:10 BuOH:EtOH:PrOH: H<sub>2</sub>O. The L,L form m. 96°, [α]<sub>20D</sub> 4.16° (c 2.2, MeOH), the D,D form m. 96°, [α]<sub>20D</sub> -4.22° (c 2.2 MeOH), and the DL mixture m. 88° (decomposition). A suspension of 0.01 mole DL-serine benzyl ester-HCl in 40 ml. dioxane was treated with 0.03 mole Et<sub>3</sub>N and 0.01 mole I as above and hydrogenated to yield 57% DL-III (R = R<sub>1</sub> = H), m. 161°. The L form m. 168°, [α]<sub>20D</sub> 5.5° (c 4, HOAc); the D form m. 168°, [α]<sub>20D</sub> -5.8° (c 4, HOAc). All three forms gave only one spot of R<sub>f</sub> 0.92 in pyridine-BuOH-H<sub>2</sub>O (1:1:1). A cold solution of 2.1 g. I in 20

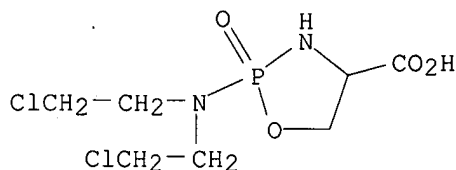
ml. dioxane was treated with 1.72 g. DL-threonine benzyl ester and 2.3 ml. Et<sub>3</sub>N in 30 ml. dioxane. After 2 days, Et<sub>3</sub>NHCl was filtered off, and the residue after solvent removal hydrogenated over Pd-C to yield 57% DL-III (R = Me, R<sub>1</sub> = H) as an oil. Polymerization of O-benzyl-N-carboxyserine anhydride was initiated either with Et<sub>3</sub>N in warm CHCl<sub>3</sub> or with NaOEt in PhBr. Poly(O-benzyl-DL-serine), mol. weight 17,500, poly(O-benzyl-L-serine), [α]<sub>D</sub><sup>20</sup> 27° (c 1.9, Cl<sub>2</sub>CHCO<sub>2</sub>H), mol. weight 39,200, and poly(O-benzyl-D-serine), [α]<sub>D</sub><sup>20</sup> -26° (c 1.9, Cl<sub>2</sub>CHCO<sub>2</sub>H), mol. weight 40,000, were prepared and characterized by ir spectra. Debenzylation of the polymers was achieved with HBr in dioxane. Poly(O-mesyl-DL-serine) was prepared by treating poly(DL-serine) with MeSO<sub>2</sub>Cl. Polyserine (1 g.) in 20 ml. anhydrous pyridine was treated with 2.1 g. I in 20 ml. dioxane to yield the DL-, L-, and D-poly[O,O'-(N,N-bis(β-chloroethyl)amido)phosphorylserine].

IT 5276-43-7 5276-44-8

(Derived from data in the 7th Collective Formula Index (1962-1966))

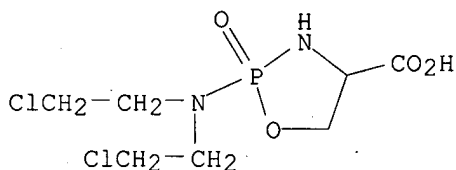
RN 5276-43-7 CAPLUS

CN 1,3,2-Oxazaphospholidine-4-carboxylic acid, 2-[bis(2-chloroethyl)amino]-, 2-oxide, DL- (8CI) (CA INDEX NAME)



RN 5276-44-8 CAPLUS

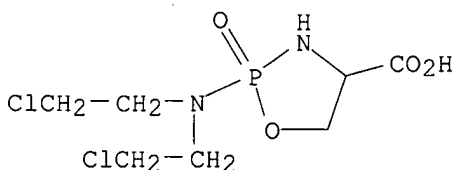
CN 1,3,2-Oxazaphospholidine-4-carboxylic acid, 2-[bis(2-chloroethyl)amino]-, 2-oxide, stereoisomers, (S)- (8CI) (CA INDEX NAME)



IT 92345-03-4, Phosphorodiamidic acid, N,N-bis(2-chloroethyl)-N'-(1-carboxy-2-hydroxyethyl)-, intramol. ester (derivs.)

RN 92345-03-4 CAPLUS

CN 1,3,2-Oxazaphospholidine-4-carboxylic acid, 2-[bis(2-chloroethyl)amino]-, 2-oxide (CA INDEX NAME)



L3 ANSWER 23 OF 30 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1966:68182 CAPLUS

DOCUMENT NUMBER: 64:68182

ORIGINAL REFERENCE NO.: 64:12787b

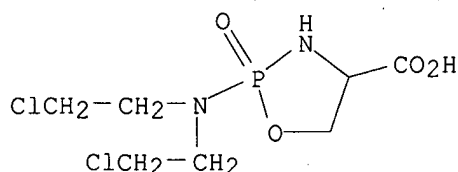
TITLE: The investigation of the arylidene and the enamine as

nitrogen-protecting groups in peptide synthesis

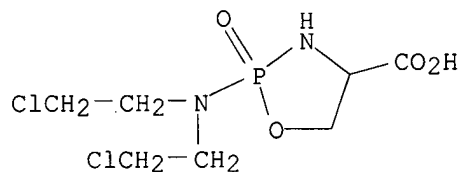
AUTHOR(S): Southard, George Lee  
 CORPORATE SOURCE: Univ. of North Carolina, Chapel Hill  
 SOURCE: (1966) 73 pp. Avail.: Univ. Microfilms (Ann Arbor, Mich.), Order No. 65-14,392  
 From: Dissertation Abstr. 26(7), 3637-8

DOCUMENT TYPE: Dissertation  
 LANGUAGE: English

AB Unavailable  
 IT 5276-43-7 5276-44-8  
 (Derived from data in the 7th Collective Formula Index (1962-1966))  
 RN 5276-43-7 CAPLUS  
 CN 1,3,2-Oxazaphospholidine-4-carboxylic acid, 2-[bis(2-chloroethyl)amino]-, 2-oxide, DL- (8CI) (CA INDEX NAME)



RN 5276-44-8 CAPLUS  
 CN 1,3,2-Oxazaphospholidine-4-carboxylic acid, 2-[bis(2-chloroethyl)amino]-, 2-oxide, stereoisomers, (S)- (8CI) (CA INDEX NAME)



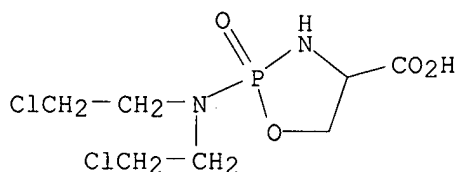
L3 ANSWER 24 OF 30 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1966:68181 CAPLUS  
 DOCUMENT NUMBER: 64:68181  
 ORIGINAL REFERENCE NO.: 64:12787a-b  
 TITLE: Synthesis of 3,4-dehydro-DL-proline-carboxy-14C  
 AUTHOR(S): Hudson, C. B.; Robertson, A. V.  
 CORPORATE SOURCE: Univ. Sydney  
 SOURCE: Australian Journal of Chemistry (1965), 18(10), 1677-80  
 CODEN: AJCHAS; ISSN: 0004-9425

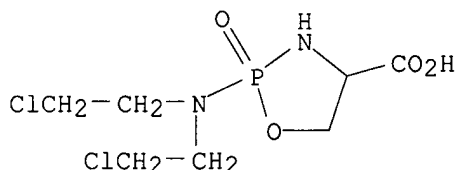
DOCUMENT TYPE: Journal  
 LANGUAGE: English

AB The title compound was synthesized by the following series of reactions: carbonation with Ba14CO3 of a pyrrole Grignard reagent, esterification with CH2N2, amidation with NH3, reduction with PH4I in fuming HI, and hydrolysis. Total radioactivity in the purified product was 29% of that in the Ba14CO3 first used.

IT 5276-43-7 5276-44-8  
 (Derived from data in the 7th Collective Formula Index (1962-1966))  
 RN 5276-43-7 CAPLUS  
 CN 1,3,2-Oxazaphospholidine-4-carboxylic acid, 2-[bis(2-chloroethyl)amino]-, 2-oxide, DL- (8CI) (CA INDEX NAME)



RN 5276-44-8 CAPLUS  
 CN 1,3,2-Oxazaphospholidine-4-carboxylic acid, 2-[bis(2-chloroethyl)amino]-, 2-oxide, stereoisomers, (S)- (8CI) (CA INDEX NAME)



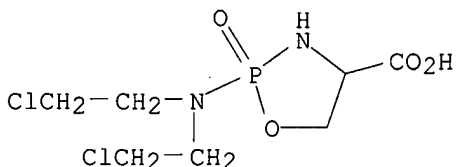
L3 ANSWER 25 OF 30 CAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 1964:461936 CAPLUS  
 DOCUMENT NUMBER: 61:61936  
 ORIGINAL REFERENCE NO.: 61:10773h,10774a-c  
 TITLE: Serine peptides as carriers of cytoactive groups  
 AUTHOR(S): Szekerke, M.; Csaszar, J.; Bruckner, V.  
 CORPORATE SOURCE: L. Eotvos, Univ., Budapest, Hung.  
 SOURCE: Chemistry & Industry (London, United Kingdom) (1964), (31), 1385-6  
 CODEN: CHINAG; ISSN: 0009-3068

DOCUMENT TYPE: Journal  
 LANGUAGE: Unavailable

AB cf. CA 59, 7660h. A cytoactive compound was prepared by coupling poly-DL-serine with (ClCH<sub>2</sub>CH<sub>2</sub>)<sub>2</sub>NPOC12. Three compds. [I (m. 161°), II [m. 88° (decomposition)], and III] were prepared' to establish and identify the active site and to determine the effect of the configuration of the carrier moiety on the biol. properties. The compds. were prepared by treating (ClCH<sub>2</sub>CH<sub>2</sub>)<sub>2</sub>NPOC12 with DL-serine benzyl ester hydrochloride, benzyloxycarbonyl-DL-Ser-DL-Ser-OCH<sub>2</sub>Ph and DL-threonine benzyl ester, resp. The reactions were carried out in dioxane in the presence of Et<sub>3</sub>N. The benzyl ester group was removed by catalytic hydrogenation. The optically active isomers (Ia and Ib) of I were prepd, from L- and D-serine benzyl ester hydrochloride, resp.: Ia m. 168°, [α]<sub>20D</sub> 5.5° (c 4, HOAc); Ib m. 168°, [α]<sub>20D</sub> -5.8° (c 4, HOAc). Infrared measurements were consistent with the proposed structures.

IT 92345-03-4P, 1,3,2-Oxazaphospholidine-4-carboxylic acid, 2-[bis(2-chloroethyl)amino]-, 2-oxide, stereoisomers  
 RL: PREP (Preparation)  
 (preparation of)

RN 92345-03-4 CAPLUS  
 CN 1,3,2-Oxazaphospholidine-4-carboxylic acid, 2-[bis(2-chloroethyl)amino]-, 2-oxide (CA INDEX NAME)



L3 ANSWER 26 OF 30 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1964:52986 CAPLUS

DOCUMENT NUMBER: 60:52986

ORIGINAL REFERENCE NO.: 60:9352c-e

TITLE: Cancerolytic peptides with directed action. V. Some amino acids and peptides containing the N-bis( $\beta$ -chloroethylaminophosphoryl) group  
AUTHOR(S): Kaz'mina, N. B.; Kil'disheva, O. V.; Knunyants, I. L.  
CORPORATE SOURCE: Inst. Heteroorg. Compds., Moscow  
SOURCE: Izvestiya Akademii Nauk SSSR, Seriya Khimicheskaya (1964), (1), 117-21  
CODEN: IASKA6; ISSN: 0002-3353

DOCUMENT TYPE: Journal

LANGUAGE: Unavailable

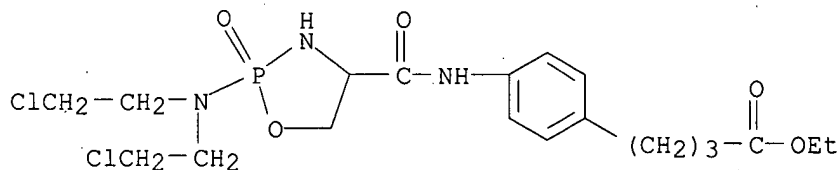
GI For diagram(s), see printed CA Issue.

AB cf. CA 57, 16734a; 58, 3505g; Friedman and Seligman, CA 49, 3874h; Arnold and Bourseaux, CA 53, 9031c. (ClCH<sub>2</sub>CH<sub>2</sub>)<sub>2</sub>NPOCl<sub>2</sub>, m. 54-6°, or its thiono analog, m. 30-2° (prepared in 74% yield by refluxing (ClCH<sub>2</sub>CH<sub>2</sub>)<sub>2</sub>NH<sub>2</sub>·HCl with PSCl<sub>3</sub> 20 hrs.; dichloride b<sub>2</sub> 117°), added to the appropriate esters of amino or hydroxyamino acids in C<sub>6</sub>H<sub>6</sub> in the presence of Et<sub>3</sub>N gave the following derivs.: 50% (ClCH<sub>2</sub>CH<sub>2</sub>)<sub>2</sub>NP(S)(NHCH<sub>2</sub>CO<sub>2</sub>Et)<sub>2</sub>, m. 146-7°; 75% I (R = MeO), m. 96°; 75% I (R = HO), m. 160°; 84% I [R = NHCH(CH<sub>2</sub>OH)CO<sub>2</sub>CH<sub>2</sub>Ph], m. 134°; 90% I [R = NHCH(CHPhOH)CO<sub>2</sub>CH<sub>2</sub>Ph], m. 147-8°; 95% I [R = NHCH(CH<sub>2</sub>OH)CO<sub>2</sub>Et], m. 130-1°; 82% I [R = NHCH(CHMeOH)CO<sub>2</sub>Me], m. 168°; 83% I [R = p-NHC<sub>6</sub>H<sub>4</sub>(CH<sub>2</sub>)<sub>3</sub>CO<sub>2</sub>Et], m. 145°; and 89% I [R = p-NHC<sub>6</sub>H<sub>4</sub>CH<sub>2</sub>CO<sub>2</sub>Et], m. 153-4°. The products were prepared for tests as antitumor agents.

IT 88890-87-3P, Butyric acid, 4-[p-[2-[bis(2-chloroethyl)amino]-1,3,2-oxazaphospholidine-4-carboxamido]phenyl]-, ethyl ester, P-oxide 92345-03-4P, 1,3,2-Oxazaphospholidine-4-carboxylic acid, 2-[bis(2-chloroethyl)amino]-, 2-oxide 92706-56-4P, 1,3,2-Oxazaphospholidine-4-carboxylic acid, 2-[bis(2-chloroethyl)amino]-, methyl ester, 2-oxide 95372-90-0P, Serine, N-[[2-[bis(2-chloroethyl)amino]-1,3,2-oxazaphospholidin-4-yl]carbonyl]-, ethyl ester, P-oxide 95372-94-4P, Threonine, N-[[2-[bis(2-chloroethyl)amino]-1,3,2-oxazaphospholidin-4-yl]carbonyl]-, methyl ester, P-oxide 100769-24-2P, Serine, N-[[2-[bis(2-chloroethyl)amino]-1,3,2-oxazaphospholidin-4-yl]carbonyl]-3-phenyl-, benzyl ester, P-oxide 106506-51-8P, Acetic acid, [p-[2-[bis(2-chloroethyl)amino]-1,3,2-oxazaphospholidine-4-carboxamido]phenyl]-, ethyl ester, P-oxide 106544-96-1P, Serine, N-[[2-[bis(2-chloroethyl)amino]-1,3,2-oxazaphospholidin-4-yl]carbonyl]-, benzyl ester, P-oxide  
RL: PREP (Preparation)  
(preparation of)

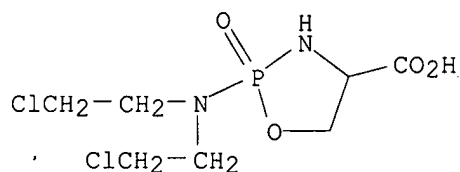
RN 88890-87-3 CAPLUS

CN Butyric acid, 4-[p-[2-[bis(2-chloroethyl)amino]-1,3,2-oxazaphospholidine-4-carboxamido]phenyl]-, ethyl ester, P-oxide (7CI) (CA INDEX NAME)



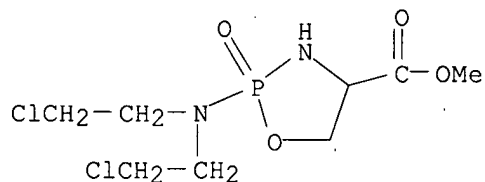
RN 92345-03-4 CAPLUS

CN 1,3,2-Oxazaphospholidine-4-carboxylic acid, 2-[bis(2-chloroethyl)amino]-, 2-oxide (CA INDEX NAME)



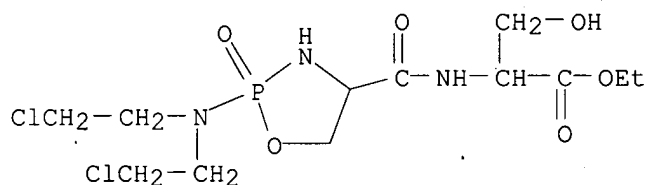
RN 92706-56-4 CAPLUS

CN 1,3,2-Oxazaphospholidine-4-carboxylic acid, 2-[bis(2-chloroethyl)amino]-, methyl ester, 2-oxide (CA INDEX NAME)



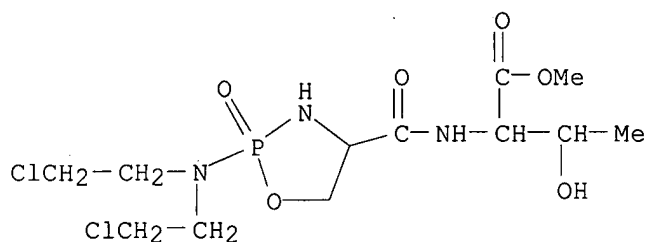
RN 95372-90-0 CAPLUS

CN Serine, N-[[2-[bis(2-chloroethyl)amino]-1,3,2-oxazaphospholidin-4-yl]carbonyl]-, ethyl ester, P-oxide (7CI) (CA INDEX NAME)



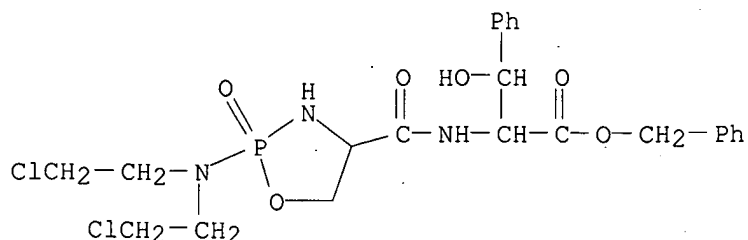
RN 95372-94-4 CAPLUS

CN Threonine, N-[[2-[bis(2-chloroethyl)amino]-1,3,2-oxazaphospholidin-4-yl]carbonyl]-, methyl ester, P-oxide (7CI) (CA INDEX NAME)

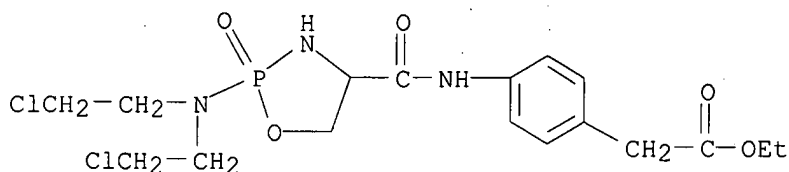


RN 100769-24-2 CAPLUS

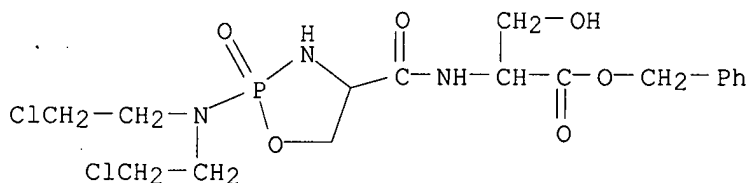
CN Serine, N-[[2-[bis(2-chloroethyl)amino]-1,3,2-oxazaphospholidin-4-yl]carbonyl]-3-phenyl-, benzyl ester, P-oxide (7CI) (CA INDEX NAME)



RN 106506-51-8 CAPLUS  
 CN Acetic acid, [p-[2-[bis(2-chloroethyl)amino]-1,3,2-oxazaphospholidine-4-carboxamido]phenyl]-, ethyl ester, P-oxide (7CI) (CA INDEX NAME)



RN 106544-96-1 CAPLUS  
 CN Serine, N-[[2-[bis(2-chloroethyl)amino]-1,3,2-oxazaphospholidin-4-yl]carbonyl]-, benzyl ester, P-oxide (7CI) (CA INDEX NAME)



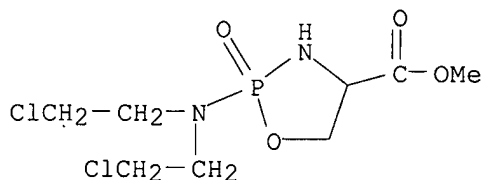
L3 ANSWER 27 OF 30 CAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 1960:28276 CAPLUS  
 DOCUMENT NUMBER: 54:28276  
 ORIGINAL REFERENCE NO.: 54:5472e-i  
 TITLE: Cyclic phosphoric acid ester amides  
 PATENT ASSIGNEE(S): Asta-Werke Akt.Ges. Chemische Fabrik.  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Unavailable  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
GB 812651		19590429	GB 1957-3283	19570130
DE 1057119			DE	
US 3018302		19620123	US 1958-728568	19580415

AB [Cl(CH<sub>2</sub>)<sub>2</sub>]<sub>2</sub>NPOCl<sub>2</sub> reacts with ω-alkanolamines or their acyl derivs. to form [Cl(CH<sub>2</sub>)<sub>2</sub>]<sub>2</sub>NPO.O.(CH<sub>2</sub>)<sub>n</sub>.NH or with ω-glycols to form [Cl(CH<sub>2</sub>)<sub>2</sub>]<sub>2</sub>NPO.O.(CH<sub>2</sub>)<sub>n</sub>.O in the presence of NEt<sub>3</sub> or other acid-binding agent. In an example, 0.1 mole HOC<sub>3</sub>H<sub>4</sub>NH<sub>2</sub> and either 0.2 mole NEt<sub>3</sub> or another 0.2 mole HOC<sub>2</sub>H<sub>4</sub>NH<sub>2</sub> in 60 ml. dioxane is dropped with stirring during 75 min. into 0.1 mole N,N-bis(β-chloroethyl)phosphoramid dichloride (I) in 70 ml. dioxane and after stirring 2 hrs. and filtering the solution evaporated in vacuo at 40-45° to leave N,N-bis(β-chloroethyl)-N',O-ethylenephosphoric acid diamide (II), m. 99.4°

(EtOH). Similarly prepared from I and NEt<sub>3</sub> are: N,N-bis(β-chloroethyl)-O,O'-ethylenephosphoric acid amide; N,N-bis(β-chloroethyl)-N',O'-ethylene-N'-methylphosphoric acid diamide (III); N,N-bis(β-chloroethyl)-O,O'-isopropylenephosphoramidate; N,N-bis(β-chloroethyl)-O,O'-(β-hydroxypropylene)phosphoramidate; N,N-bis(β-chloroethyl)(O,N'-dl-serine methyl ester)phosphoramidate; N,N-bis(β-chloroethyl)-N',O-propylenephosphoric acid diamide, m. 48-9°; N,N-bis(β-chloroethyl)-N',O-butylenephosphoric acid diamide; N,N-bis(β-chloroethyl)-N',O-ethylene-N'-(β-hydroxyethyl)phosphoric acid diamide; N,N-bis(β-chloroethyl)-O,O'-propylenephosphoramidate, m. 49-50°; N,N-bis(β-chloroethyl)-O,O'-butylenephosphoramidate, m. 72-3° (AcOEt). Treatment of I in C<sub>6</sub>H<sub>6</sub> with NEt<sub>3</sub> and pentaerythritol in C<sub>5</sub>H<sub>5</sub>N gives N,N-bis(β-chloroethyl)-O',O'-[β-bis(hydroxymethyl)propylene]-phosphoramidate, and similar reaction using D-sorbitol yields N,N-bis(β-chloroethyl)-O,O'-sorbitylphosphoramidate. Preparation from NEt<sub>3</sub> and N,N-bis(β-chloroethyl)-O-phenyl-phosphoramidate chloride (b0.2 167-9°) in dioxane gives II using HOC<sub>2</sub>H<sub>4</sub>NH<sub>2</sub> and III using HOC<sub>2</sub>H<sub>4</sub>NHMe. Products for which no m.p. is given are oils and the compds. are carcinostatic agents.

IT 92706-56-4P, 1,3,2-Oxazaphospholidine-4-carboxylic acid, 2-[bis(2-chloroethyl)amino]-, 2-oxide, Me ester  
 RL: PREP (Preparation)  
 (preparation of)  
 RN 92706-56-4 CAPLUS  
 CN 1,3,2-Oxazaphospholidine-4-carboxylic acid, 2-[bis(2-chloroethyl)amino]-, methyl ester, 2-oxide (CA INDEX NAME)



L3 .ANSWER 28 OF 30 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1957:58108 CAPLUS

DOCUMENT NUMBER: 51:58108

ORIGINAL REFERENCE NO.: 51:10774a-c

TITLE: Cuticular lipides of arthropods. II. The chemical composition of the wax from *Ceroplastes destructor*

AUTHOR(S): Gilbey, A. R.

CORPORATE SOURCE: New S. Wales Univ. Technol., Austr.

SOURCE: Archives of Biochemistry and Biophysics (1957), 67, 307-19

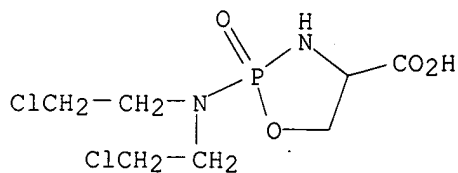
CODEN: ABBIA4; ISSN: 0003-9861

DOCUMENT TYPE: Journal

LANGUAGE: Unavailable

AB The wax from *C. destructor* consists of n-paraffin-chain acids and alcs. largely combined as esters. In addition to long-chain acids and alcs., of average length about C<sub>27</sub>, a significant proportion of short-chain (about C<sub>12</sub>) acids and alcs. is present, the alcs. being unsatd. with at least 2 unconjugated double bonds/mol. The mol. ratio of C<sub>27</sub>:C<sub>12</sub> mols. is approx. 1:2.5 for the hydrolyzed alcs. There is also a minor fraction of an unknown conjugated unsatd. compound (probably a diene). The present results differ from those of Hackman (C.A. 46, 1661d) in that they indicate the presence of shorter-chain and unsatd. materials which were probably lost when H.'s material was crystallized from CHCl<sub>3</sub>-EtOH. Knowledge of the presence of an appreciable fraction of unsatd. and short-chain compds. is of considerable importance in considering biol. aspects of lipides, and the methods used here possess the advantage of avoiding the loss of important

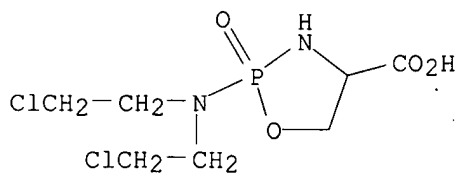
fractions.  
 IT 92345-03-4  
 (Derived from data in the 6th Collective Formula Index (1957-1961))  
 RN 92345-03-4 CAPLUS  
 CN 1,3,2-Oxazaphospholidine-4-carboxylic acid, 2-[bis(2-chloroethyl)amino]-,  
 2-oxide (CA INDEX NAME)



L3 ANSWER 29 OF 30 CAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 1957:58107 CAPLUS  
 DOCUMENT NUMBER: 51:58107  
 ORIGINAL REFERENCE NO.: 51:10773i,10774a  
 TITLE: Cuticular lipides of arthropods. I. The influence of  
 biological factors on the composition of the wax from  
 Ceroplastes destructor  
 AUTHOR(S): Gilby, A. R.; Alexander, A. E.  
 CORPORATE SOURCE: New S. Wales Univ. Technol., Austr.  
 SOURCE: Archives of Biochemistry and Biophysics (1957), 67,  
 302-6  
 CODEN: ABBIA4; ISSN: 0003-9861  
 DOCUMENT TYPE: Journal  
 LANGUAGE: Unavailable

AB cf. C.A. 50, 16311b. A combined study of unimol. surface films and  
 infrared absorption spectra forms a convenient and rapid means of  
 assessing the chemical nature of the white wax scale, and the influence  
 thereon of environment and age of the insect. There is a typical composition  
 for the wax produced by C. destructor, although the relative amts. of the  
 components may vary. This typical composition is not greatly affected by the  
 age of the insect or type and locality of the host plant. The unsatd.  
 compds. present do not arise from extraction of the insect body.

IT 92345-03-4  
 (Derived from data in the 6th Collective Formula Index (1957-1961))  
 RN 92345-03-4 CAPLUS  
 CN 1,3,2-Oxazaphospholidine-4-carboxylic acid, 2-[bis(2-chloroethyl)amino]-,  
 2-oxide (CA INDEX NAME)



L3 ANSWER 30 OF 30 CAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 1957:58106 CAPLUS  
 DOCUMENT NUMBER: 51:58106  
 ORIGINAL REFERENCE NO.: 51:10773g-i  
 TITLE: The amine constituents from the excretory products of  
 Ascaris lumbricoides and Trichinella spiralis larvae  
 AUTHOR(S): Haskins, Willard T.; Weinstein, Paul P.  
 CORPORATE SOURCE: Natl. Inst. of Allergy and Infectious Diseases,  
 Bethesda, MD

SOURCE: Journal of Parasitology (1957), 43, 28-32

CODEN: JOPAA2; ISSN: 0022-3395

DOCUMENT TYPE: Journal

LANGUAGE: Unavailable

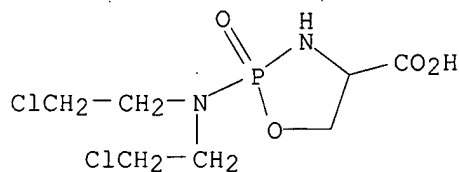
AB T. spiralis and A. lumbricoides larvae were incubated in saline under axenic conditions for 24 hrs. Alc. exts. of the acidified concentrates of the incubates were examined for the presence of aliphatic primary amines by paper chromatography. T. spiralis larvae produced Me, Et, Pr, Bu, amyl, and heptyl amines, ethylenediamine, cadaverine, ethanolamine, and 1-amino-2-propanol. A. lumbricoides larvae produced all of these amines with the exception of amyl and heptyl amines and ethylenediamine. The egg-fluid inside the vitelline membrane of the larvae of A. lumbricoides was found to have the same amines as in the incubates from the larvae.

IT 92345-03-4

(Derived from data in the 6th Collective Formula Index (1957-1961))

RN 92345-03-4 CAPLUS

CN 1,3,2-Oxazaphospholidine-4-carboxylic acid, 2-[bis(2-chloroethyl)amino]-, 2-oxide (CA INDEX NAME)





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=> D L3 IBIB ABS HITSTR 1

L3 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2005:673309 CAPLUS

DOCUMENT NUMBER: 143:153649

TITLE: Sphingomyelin, intermediates thereof and methods for preparation of same

INVENTOR(S): Rochlin, Elimelech; Hildesheim, Jean; Berlin, Alisa

PATENT ASSIGNEE(S): Biolab Ltd., Israel

SOURCE: PCT Int. Appl., 39 pp.

CODEN: PIXXD2

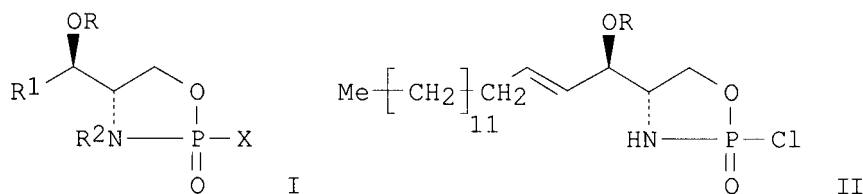
DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005068480	A1	20050728	WO 2005-IL43	20050113
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
AU 2005205245	A1	20050728	AU 2005-205245	20050113
CA 2552797	A1	20050728	CA 2005-2552797	20050113
EP 1704155	A1	20060927	EP 2005-703086	20050113
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK, IS			
JP 2007517860	T	20070705	JP 2006-548580	20050113
IN 2006DN03970	A	20070427	IN 2006-DN3970	20060710
PRIORITY APPLN. INFO.:			US 2004-536507P	P 20040115
			WO 2005-IL43	W 20050113
OTHER SOURCE(S):	CASREACT 143:153649; MARPAT 143:153649			
GI				



AB A process was disclosed for the preparation of oxazaphospholanes, such as I [R = hydroxyl protecting group; R1 = hydrophobic group; R2 = H, C1-24 aliphatic moiety; X = leaving group], which are useful intermediates for the synthesis of sphingomyelins. Thus, N-(tert-butoxycarbonyl)-D-erythro-sphingosine was reacted with ClSiPh<sub>2</sub>CMe<sub>3</sub> using imidazole in CH<sub>2</sub>Cl<sub>2</sub> to form N-(tert-Butoxycarbonyl)-O-(tert-butyldiphenylsilyl)-D-erythro-sphingosine in 56% yield. The N,O-diprotected sphingosine derivative was then reacted with POCl<sub>3</sub> using Et<sub>3</sub>N in CH<sub>2</sub>Cl<sub>2</sub> to give the intermediate oxazaphospholane II (R = SiPh<sub>2</sub>CMe<sub>3</sub>) which was further converted to N-palmitoylsphingosylphosphorylcholine in 31% yield via reaction with choline tosylate and palmitoyl chloride using Et<sub>3</sub>N in CH<sub>2</sub>Cl<sub>2</sub> and subsequent desilylation of the resulting O-silyl protected derivative with TBAF.

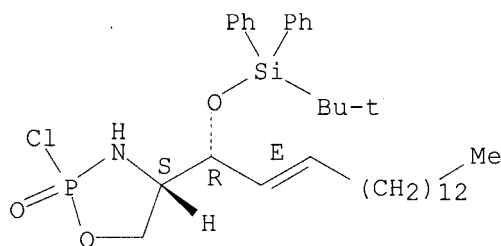
IT 860021-45-0P

RL: IMF (Industrial manufacture); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(process for the preparation of cyclic and acyclic oxazaphospholanes as intermediates for the synthesis of sphingomyelin and sphingomyelin analogs)

RN 860021-45-0 CAPLUS

CN 1,3,2-Oxazaphospholidine, 2-chloro-4-[(1R,2E)-1-[[[(1,1-dimethylethyl)diphenylsilyl]oxy]-2-hexadecenyl]-, 2-oxide, (4S)- (9CI)  
(CA INDEX NAME)

Absolute stereochemistry.  
Double bond geometry as shown.



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